

CUMULATIVE INDEXES

VOLUMES 37 - 41

INDEX OF CONTRIBUTING AUTHORS

A

Adams, G. H., 38:113
Amaldi, F., 39:183
Anfinsen, C. B., 40:259
Antonini, E., 39:977
Arber, W., 38:467
Ashwell, M., 39:251
Attardi, G., 39:183
August, J. T., 39:527
Axelrod, J., 40:465

B

Bangham, A. D., 41:753
Barker, H. A., 41:55
Barnard, E. A., 38:677
Beckwith, J. R., 37:411
Behrens, O. K., 38:83
Bentley, R., 41:953
Berger, A., 41:869
Beychok, S., 37:437
Bishop, N. I., 40:197
Blakley, R. L., 37:201
Blow, D. M., 39:63
Blumenfeld, O. O., 41:617
Bodanszky, M., 40:449
Boiteux, A., 40:237
Bonhoeffer, F., 41:301
Borst, P., 41:333
Botchan, M., 39:151
Brand, L., 41:843
Briggs, G. M., 40:549
Brunori, M., 39:977
Burgess, R. R., 40:711
Burgus, R., 39:499
Burns, R. C., 37:331
Butcher, R. W., 37:149

C

Calvo, J. M., 40:943
Chance, B., 39:473
Church, R. B., 39:131
Clewell, D. B., 40:899
Cohen, G. N., 37:79
Cohen, L. A., 37:695
Cole, R. D., 38:951
Coombs, T. L., 38:539
Cori, C. F., 38:1
Corradino, R. A., 40:501
Cramer, F., 40:1045
Crofts, A. R., 39:389
Cuatrecasas, P., 40:259

D

Darnall, D. W., 39:25
DeLange, R. J., 40:279
DeSombre, E. R., 41:203
Deutscher, M. P., 37:51
Dickerson, R. E., 41:815
Dickson, R. C., 41:467
Dole, V. P., 39:821
Downer, N. W., 41:903
Doyle, D., 39:929
Duntze, W., 40:345

E

Echols, H., 40:827
Eckhart, W., 41:503
Edelman, G. M., 38:415
Edsall, J. T., 40:1
Einstein, E. R., 40:635
Eiserling, F. A., 41:467
Englander, S. W., 41:903
Epstein, W., 37:411

F

Ferguson, S. M., 38:991
Fink, G. R., 40:943
Finkelstein, A., 37:463
Fitch, W. M., 40:969
Frieden, C., 40:653
Friedman, P. A., 40:775

G

Gall, W. E., 38:415
Gallop, P. M., 41:617
Garfinkel, D., 39:473
Garfinkel, L., 39:473
Gauss, D. H., 40:1045
Geiduschek, E. P., 38:647
Gibbons, I. R., 37:521
Gilham, P. T., 39:227
Gilvarg, C., 40:397
Ginos, J. Z., 38:881
Ginsburg, A., 39:429
Ginsburg, V., 38:371
Glassman, E., 38:605
Glazer, A. N., 39:101
Gohlke, J. R., 41:843
Goldberg, I. H., 40:775
Goldfine, H., 37:303

Goulian, M., 40:855
Green, M., 39:701
Green, S. B., 39:473
Greenfield, H., 40:549
Grinnan, E. L., 38:83
Gross, P. R., 37:631
Guéron, M., 37:571
Guidotti, G., 41:731
Guillemin, R., 39:499
Gutfreund, H., 40:315

H

Haber, E., 37:497
Hall, Z. W., 41:925
Hardy, R. W. F., 37:331
Haselkorn, R., 38:647
Hastings, A. B., 39:1
Hastings, J. W., 37:597
Hayaishi, O., 38:21
Hearst, J. E., 39:151
Heath, E. C., 40:29
Helinski, D. R., 40:899
Hellerman, L., 39:867
Henn, F. A., 38:241
Hess, B., 40:237
Hess, G. P., 40:1013
Heyde, E., 41:29
Heywood, J., 41:447
Hinman, J. W., 41:161
Hogenkamp, H. P. C., 37:225
Holzer, H., 40:345
Hood, L., 40:969
Horio, T., 39:673
Horton, C. A., 40:573
Howard-Flanders, P., 37:175

J

Jardetzky, O., 40:605
Jensen, E. V., 41:203
Jost, J.-P., 40:741

K

Kaback, H. R., 39:561
Kamen, M. D., 39:673
Katchalski, E., 41:869
Kates, M., 39:323
Katsourianis, P. G., 38:881
Kirk, J. T. O., 40:161
Klein, A., 41:301

Kleinschmidt, W. J., 41:517
 Klotz, I. M., 39:25
 Knappe, J., 39:757
 Koerner, J. F., 39:291
 Korn, E. D., 38:263
 Kornberg, A., 37:51
 Koshland, D. E., Jr., 37:359
 Krampitz, L. O., 38:213
 Kurland, C. G., 41:377

L

Langerman, N. R., 39:25
 Lardy, H. A., 38:991
 Lark, K. G., 38:569
 Larnier, J., 39:639
 Law, J. H., 40:533
 Lennarz, W. J., 39:359
 Linn, S., 38:467
 Lipmann, F., 40:409
 Losick, R., 41:409
 Lotan, N., 41:869
 Lucas-Lenard, J., 40:409

M

Madison, J. T., 37:131
 Maelicke, A., 40:1045
 Magee, W. L., 41:129
 Marglin, A., 39:841
 Margoliash, E., 37:727
 Marshall, R. D., 41:673
 Matthyse, S., 39:777
 McCarthy, B. J., 39:131
 McConnell, H. M., 40:227
 McGhee, J. D., 41:231
 McLafferty, F. W., 38:269
 McMurray, W. C., 41:129
 Merrifield, R. B., 39:841
 Meselson, M., 41:447
 Metzger, H., 39:889
 Meyer, A. J., 40:115
 Molinoff, P. B., 40:465
 Morris, C. J., 38:137
 Morrison, J. F., 41:29
 Moss, M. L., 40:573
 Müller-Eberhard, H. J., 38:389
 Murray, A. W., 40:811

N

Nachmansohn, D., 41:1
 Neet, K. E., 37:359
 Neims, A. H., 39:867

Nelson, D. L., 37:51
 Neufeld, E. F., 38:371
 Nolan, C., 37:727

O

Osawa, S., 37:109
 Osborn, M. J., 38:501
 Oxender, D. L., 41:777

P

Perlman, D., 40:449
 Pestka, S., 40:697
 Piez, K. A., 37:547
 Pring, M., 39:473

R

Raivio, K. O., 41:543
 Ramachandran, G. N., 38:45
 Regnier, F. E., 40:533
 Richardson, C. C., 38:795
 Rickenberg, H. V., 40:741
 Riordan, J. F., 38:733
 Roberts, E., 39:777
 Robison, G. A., 37:149
 Rothfield, L., 37:463
 Rupley, J. A., 40:1013

S

Scanu, A. M., 41:703
 Schinke, R. T., 39:929
 Schumaker, V. N., 38:113
 Scrutton, M. C., 37:249
 Seegmiller, J. E., 41:543
 Seifter, S., 41:617
 Seligman, A. M., 40:375
 Shnitka, T. K., 40:375
 Shooter, E. M., 40:635
 Sinsulman, R. G., 37:571
 Sih, C. J., 37:661
 Slama, K., 40:1079
 Smith, E. L., 40:279
 Smith, G. P., 40:969
 Smith, I. K., 38:137
 Spiro, R. G., 39:599
 Spudich, J. A., 37:51
 Stadtman, E. R., 39:429
 Stavis, R. L., 39:527
 Steinberg, I. Z., 40:83

Steitz, T. A., 39:63
 Stellwagen, R. H., 38:951
 Stoffel, W., 40:57
 Stryer, L., 37:25
 Stumpf, P. K., 38:159
 Sussman, A. J., 40:397
 Sutherland, E. W., 37:149

T

Taylor, A. N., 41:179
 Taylor, E. W., 41:577
 Teitelbaum, H., 41:903
 Thompson, J. F., 38:137
 Thompson, T. E., 38:241
 Tiselius, A., 37:1
 Truffa-Bachi, P., 37:79

U

Ulmer, D. D., 41:91
 Umbarger, H. E., 38:323
 Utter, M. F., 37:249

V

Vallee, B. L., 38:733;
 41:91
 van Dam, K., 40:115
 Vankatachalam, C. M., 38:45
 Van Lear, G., 38:289
 Villar-Palasi, C., 39:639
 Vitols, E., 37:201
 von der Haar, F., 40:1045
 von Hippel, P. H., 41:231

W

Wacker, W. E. C., 38:539
 Wade-Jardetzky, N. G., 40:605
 Walker, D. A., 39:389
 Wassef, M. K., 39:323
 Wasserman, R. H., 40:501;
 41:179
 White, J. C., 40:573
 Whittlock, H. W. Jr., 37:661
 Wisdom, C., 41:703
 Work, T. S., 39:251

Y

Yarus, M., 38:841
 Young, M., 38:913
 Yuan, R., 41:447

INDEX OF CHAPTER TITLES

VOLUMES 37-41

AMINO ACIDS, PEPTIDES, PROTEINS (see also Hormones)

Biosynthesis

Amino Acid Biosynthesis in Microorganisms	P. Truffa-Bachi, G. N. Cohen	37:79-108
Protein Biosynthesis	J. Lucas-Lenard, F. Lipmann	40:409-48
Recent Results of tRNA Research	D. H. Gauss, F. von der Haar, A. Maelicke, F. Cramer	40:1045-78

Chemistry

Group-Specific Reagents in Protein Chemistry	L. A. Cohen	37:695-726
Comparative Aspects of Primary Structures of Proteins	C. Nolan, E. Margoliash	37:727-90
New Naturally Occurring Amino Acids	J. F. Thompson, C. J. Morris, I. K. Smith	38:137-58
The Antibody Problem	G. M. Edelman, W. E. Gall	38:415-66
Chemical Synthesis of Peptides	P. G. Katsoyannis, J. Z. Ginos	38:881-912
Quaternary Structure of Proteins	I. M. Klotz, N. R. Langerman, D. W. Darnall	39:25-62
X-Ray Diffraction Studies of Enzymes	D. M. Blow, T. A. Steitz	39:63-100
Specific Chemical Modification of Proteins	A. N. Glazer	39:101-30
Chemical Synthesis of Peptides and Proteins	A. Marglin, R. B. Merrifield	39:841-66
Protein-Protein Interaction and Enzymatic Activity	C. Frieden	40:653-96

Metabolism

Regulation of Amino Acid Metabolism	H. E. Umbarger	38:323-70
Peptide Transport and Metabolism in Bacteria	A. J. Sussman, C. Gilvarg	40:397-408
Biosynthesis of Peptide Antibiotics	D. Perlman, M. Bodanszky	40:449-64

Special Classes

Cross-Linking of Collagen and Elastin	K. A. Piez	37:547-70
Circulating Lipoproteins	V. N. Schumaker, G. H. Adams	38:113-36
Complex Heterosaccharides of Animals	V. Ginsburg, E. F. Neufeld	38:371-88
Chromosomal Proteins	R. H. Stellwagen, R. D. Cole	38:951-90
Glycoproteins	R. G. Spiro	39:599-638
Bacterial Cytochromes: I. Structural Aspects	M. D. Kamen, T. Horio	39:673-700
Hemoglobin	E. Antonini, M. Brunori	39:977-1042
Glycoproteins	R. D. Marshall	41:673-702
Serum Lipoproteins: Structure and Function	A. M. Scanu, C. Wisdom	41:703-30
Membrane Proteins	G. Guidotti	41:731-52

Structure

Implications of X-Ray Crystallographic Studies of Protein Structure	L. Stryer	37:25-50
Conformation of Polypeptide Chains	C. M. Venkatachalam, G. N. Ramachandran	38:45-82
Spin-Label Studies of Cooperative Oxygen Binding to Hemoglobin	H. M. McConnell	40:227-36
Affinity Chromatography	P. Cuatrecasas, C. B. Anfinsen	40:259-78
Histones: Structure and Function	R. J. DeLange, E. L. Smith	40:279-314
Structure and Function of Connective Tissue Proteins	P. M. Gallop, O. O. Blumenfeld, S. Seifter	41:617-72
X-Ray Studies of Protein Mechanisms	R. E. Dickerson	41:815-42
Fluorescence Probes of Structure	L. Brand, J. R. Gohlke	41:843-902
Conformation and Conformational Transitions of Poly- α -Amino Acids in Solution	N. Lotan, A. Berger, E. Katchalski	41:869-902

Hydrogen Exchange	S. W. Englander, N. W. Downer, H. Teitelbaum	41:903-24
-------------------	---	-----------

BACTERIAL SPORULATION AND GERMINATION

Origin of Proteins in Sporulation	A. Kornberg, J. A. Spudich, D. L. Nelson, M. P. Deutscher	37:51-78
-----------------------------------	--	----------

BIOLUMINESCENCE

Bioluminescence	J. W. Hastings	37:597-630
-----------------	----------------	------------

CANCER, CARCINOGENESIS, CARCINOLYSIS

Biochemistry of Differentiation	P. R. Gross	37:631-60
---------------------------------	-------------	-----------

Oncogenic Viruses	M. Green	39:701-56
Oncogenic Viruses	W. Eckhart	41:503-16
CARBOHYDRATES		
Chemistry		
Complex Heterosaccharides of Animals	V. Ginsburg, E. F. Neufeld	38:371-88
Glycoproteins	R. G. Spiro	39:599-638
Complex Polysaccharides	E. C. Heath	40:29-56
Configurational and Conformational Aspects of Carbohydrate Biochemistry	R. Bentley	41:953-96
Metabolism		
The Regulation of Glycolysis and Gluconeogenesis in Animal Tissues	M. C. Scrutton, M. F. Utter	37:249-302
Glycogen Metabolism and Glycolytic Enzymes	C. Villar-Palasi, J. Lerner	39:639-72
CELLS, CELL WALLS, AND CELL MEMBRANES		
Membrane Biochemistry	L. Rothfield, A. Finkelstein	37:463-96
Synthetic Lipid Bilayer Membranes	F. A. Henn, T. E. Thompson	38:241-62
Cell Membranes: Structure and Synthesis	E. D. Korn	38:263-88
Structure and Biosynthesis of the Bacterial Cell Wall	M. J. Osborn	38:501-38
Transport	H. R. Kaback	39:561-98
Membrane Proteins	G. Guidotti	41:731-52
Lipid Bilayers and Biomembranes	A. D. Bangham	41:753-76
Membrane Transport	D. L. Oxender	41:777-814
CLINICAL BIOCHEMISTRY		
Clinical Biochemistry	M. L. Moss, C. A. Horton, J. C. White	40:573-604
DRUGS AND FOREIGN SUBSTANCES		
Biochemistry of Addiction	V. P. Dole	39:821-40
Biochemistry of Catecholamines	P. B. Molinoff, J. Axelrod	40:465-500
Biochemical Effects of Mercury, Cadmium, and Lead	B. L. Vallee, D. D. Ulmer	41:97-128
ENERGY TRANSFER		
Long-Range Nonradiative Transfer of Electronic Excitation Energy in Proteins and Polypeptides	I. Z. Steinberg	40:83-114
ENZYMES (see also Oxidations)		
Coenzymes and Cofactors		
Catalytic Functions of Thiamin Diphosphate	L. O. Krampitz	38:213-40
General		
DNA Repair	P. Howard-Flanders	37:175-200
Ribonucleases	E. A. Barnard	38:677-732
Enzymes in DNA Metabolism	C. C. Richardson	38:795-840
Enzymes of Nucleic Acid Metabolism	J. F. Koerner	39:291-322
Mechanism of Enzyme Action, Organization, and Regulation		
The Catalytic and Regulatory Properties of Enzymes	D. E. Koshland Jr., K. E. Neet	37:359-410
Initiation and Control of DNA Synthesis	K. G. Lark	38:569-604
Chemical Approaches to the Properties of Active Sites of Enzymes	B. L. Vallee, J. F. Riordan	38:733-94
Multienzyme Systems	A. Ginsburg, E. R. Stadtman	39:429-72
Control of Enzyme Levels in Animal Tissues	R. T. Schimke, D. Doyle	39:929-76
Oscillatory Phenomena in Biochemistry	B. Hess, A. Bioteux	40:237-58
Transients and Relaxation Kinetics of Enzyme Reactions	H. Gutfreund	40:315-44
Metabolic Regulation by Chemical Modification of Enzymes	H. Holzer, W. Duntze	40:345-74
Ultrastructural Localization of Enzymes	T. K. Shitka, A. M. Seligman	40:375-96
Regulation of Biosynthetic Pathways in Bacteria and Fungi	J. M. Calvo, G. R. Fink	40:943-68
Structure and Function of Proteins	G. P. Hess, J. A. Rupley	40:1013-44
Enzymic Phosphoryl Group Transfer	J. F. Morrison, E. Heyde	41:29-54
Corrinoid-Dependent Enzymic Reactions	H. A. Barker	41:55-96
X-Ray Studies of Protein Mechanisms	R. E. Dickerson	41:815-42
Fluorescence Probes of Structure	L. Brand, J. R. Gohlke	41:843-68
GENETICS, BIOCHEMICAL ASPECTS		
Regulation of Gene Expression	W. Epstein, J. R. Beckwith	37:411-36

Clinical Biochemistry: Enzymatic Methods: Automation and Atomic Absorption Spectroscopy	W. E. C. Wacker, T. L. Coombs	38:539-68
The Specificity of Molecular Hybridization Reactions	B. J. McCarthy, R. B. Church	39:131-50 39:151-82
The Eukaryotic Chromosome	J. E. Hearst, M. Botchan	
Lysogeny: Viral Repression and Site-Specific Recombination	H. Echols	40:827-54
Genetic Diseases of Metabolism	K. O. Raivio, J. E. Seegmiller	41:543-76
HORMONES AND REGULATORY SUBSTANCES (see also Pheromones; Steroids)		
Polypeptide Hormones	O. K. Behrens, E. L. Grinnan	38:83-112
Hypothalamic Releasing Factors	R. Burgus, R. Guillemin	39:499-526
Insect Juvenile Hormone Analogues	K. Slama	40:1079-1102
Prostaglandins	J. W. Hinman	41:161-78
Mechanism of Action of the Female Sex Hormones	E. V. Jensen, E. R. DeSombre	41:203-30
IMMUNOCHEMISTRY		
Immunochemistry	E. Haber	37:497-520
Complement	H. J. Müller-Eberhard	38:389-414
The Antibody Problem	G. M. Edelman, W. E. Gall	38:415-66
The Antigen Receptor Problem	H. Metzger	39:889-928
Antibody Diversity	G. P. Smith, L. Hood, W. M. Fitch	40:969-1012 41:517-42
Biochemistry of Interferon and its Inducers	W. J. Kleinschmidt	
INSTRUMENTATION AND ANALYTICAL PROCEDURES		
Rotatory Dispersion and Circular Dichroism	S. Beychok	37:437-62
Biochemical Aspects of High-Resolution Mass Spectrometry	G. E. VanLear, F. W. McLafferty	38:289-322
Computer Applications to Biochemical Kinetics	D. Garfinkel, L. Garfinkel, M. Pring, S. B. Green, B. Chance	39:473-98
Spin-Label Studies of Cooperative Oxygen Binding to Hemoglobin	H. M. McConnell	40:227-36
Applications of Nuclear Magnetic Resonance Spectroscopy to the Study of Macromolecules	O. Jardetzky, N. G. Wade- Jardetzky	40:605-34
LEARNING, BIOCHEMISTRY OF		
The Biochemistry of Learning: An Evaluation of the Role of RNA and Protein	E. Glassman	38:605-46
LIPIDS		
Lipid Chemistry and Metabolism	H. Goldfine	37:303-30
Circulating Lipoproteins	V. N. Schumaker, G. H. Adams	38:113-36 38:159-212
Metabolism of Fatty Acids	P. K. Stumpf	39:323-58
Lipid Chemistry	M. Kates, M. K. Wassef	39:359-88
Lipid Metabolism	W. J. Lennarz	40:57-82
Sphingolipids	W. Stoffel	41:129-60
Phospholipid Metabolism	W. C. McMurray, W. L. A. Agee	41:161-73
Prostaglandins	J. W. Hinman	41:753-76
Lipid Bilayers and Biomembranes	A. D. Bangham	
MITOCHONDRIA, RIBOSOMES		
Ribosome Formation and Structure	S. Osawa	37:109-30
Structure and Synthesis of Ribosomal RNA	G. Attardi, F. Amaldi	39:183-226
The Biogenesis of Mitochondria	M. Ashwell, T. S. Work	39:251-90
Inhibitors of Ribosome Functions	S. Pestka	40:697-710
Mitochondrial Nucleic Acids	P. Borst	41:333-76
MOTILITY		
Biochemistry of Motility	I. R. Gibbons	37:521-46
MUSCLE		
The Molecular Basis of Muscle Contraction	M. Young	38:913-50
Chemistry of Muscle Contraction	E. W. Taylor	41:577-616
NEUROCHEMISTRY		
Neurochemistry: At the Crossroads of		

Neurobiology	E. Roberts, S. Matthysse	39:777-820
Proteins of the Nervous System	E. M. Shooter, E. R. Einstein	40:635-52
Release of Neurotransmitters and their Interaction with Receptors	Z. W. Hall	41:925-52
NITROGEN FIXATION		
Biological Nitrogen Fixation	R. W. F. Hardy, R. C. Burns	37:331-58
NUCLEIC ACIDS, NUCLEOTIDES, AND NUCLEOSIDES		
Primary Structure of RNA	J. T. Madison	37:131-48
Cyclic AMP	G. A. Robison, R. W. Butcher, E. W. Sutherland	37:149-74
The Control of Nucleotide Biosynthesis	R. L. Blakley, E. Vitols	37:201-24
DNA Modification and Restriction	W. Arber, S. Linn	38:467-500
Initiation and Control of DNA Synthesis	K. G. Lark	38:569-604
Messenger RNA	E. P. Geiduschek, R. Haselkorn	38:647-76
Ribonucleases	E. A. Barnard	38:677-732
Enzymes in DNA Metabolism	C. C. Richardson	38:795-840
Recognition of Nucleotide Sequences	M. Yarush	38:841-80
Structure and Synthesis of Ribosomal RNA	G. Attardi, F. Amaldi	39:183-226
RNA Sequence Analysis	P. T. Gilham	39:227-50
Enzymes of Nucleic Acid Metabolism	J. F. Koerner	39:291-322
The Biochemistry of RNA Bacteriophage		
Replication	R. L. Stavis, J. T. August	39:527-60
RNA Polymerase	R. R. Burgess	40:711-40
Cyclic AMP	J. -P. Jost, H. V. Rickenberg	40:741-74
Antibiotics and Nucleic Acids	I. H. Goldberg, P. A. Friedman	40:775-810
The Biological Significance of Purine Salvage	A. W. Murray	40:811-26
Biosynthesis of DNA	M. Goulian	40:855-98
Circular DNA	D. R. Helinski, D. B. Clewell	40:899-942
DNA-Protein Interactions	P. H. von Hippel, J. D. McGhee	41:231-300
DNA Replication	A. Klein, F. Bonhoeffer	41:301-32
Mitochondrial Nucleic Acids	P. Borst	41:333-76
Structure and Function of the Bacterial Ribosome	C. G. Kurland	41:377-408
In Vitro Transcription	R. Losick	41:409-46
Restriction and Modification of DNA	M. Meselson, R. Yuan, J. Heywood	41:447-66
NUTRITION		
Nutritional Methodology in Metabolic Research with Rats	H. Greenfield, G. M. Briggs	40:549-72
OXIDATIONS, BIOLOGICAL (see also Energy Transfer, Enzymes)		
Energy Transfer in Polynucleotides	M. Guéron, R. G. Shulman	37:571-96
Enzymic Hydroxylation	O. Hayaishi	38:21-44
Oxidative Phosphorylation in Mitochondria	H. A. Lardy, S. M. Ferguson	38:991-1034
Oxidation and Energy Conservation by Mitochondria	K. van Dam, A. J. Meyer	40:115-60
PEPTIDES		
See Amino Acids, Peptides, and Proteins		
PHEROMONES		
Pheromones	J. H. Law, F. E. Regnier	40:533-48
PHOTOSYNTHESIS		
Photosynthesis	D. A. Walker, A. R. Crofts	39:389-428
Chloroplast Structure and Biogenesis	J. T. O. Kirk	40:161-96
Photosynthesis: The Electron Transport System of Green Plants	N. I. Bishop	40:197-226
PREFATORY		
Reflections from Both Sides of the Counter	A. Tiselius	37:1-24
The Call of Science	C. F. Cori	38:1-20
A Biochemist's Anabasis	A. B. Hastings	39:1-24
Some Personal History and Reflections from the Life of a Biochemist	J. T. Edsall	40:1-28
Biochemistry as Part of My Life	D. Nachmansohn	41:1-28
PROTEINS		
See Amino Acids, Peptides, and Proteins		
STERIODS		
Biochemistry of Steroids	C. J. Sih, H. W. Whitlock Jr.	37:661-94
VIRUSES		
The Biochemistry of RNA Bacteriophage		

INDEX OF CHAPTER TITLES

1091

Replication	R. L. Stavis, J. T. August	39:527-60
Oncogenic Viruses	M. Green	39:701-56
Assembly of Viruses	F. A. Elserling, R. C. Dickson	41:467-502
Oncogenic Viruses	W. Eckhart	41:503-16
VITAMINS		
Enzymatic Reactions Involving Corrinoids	H. P. C. Hogenkamp	37:225-48
Catalytic Functions of Thiamin Diphosphate	L. O. Krampitz	38:213-40
Mechanism of Biotin Action	J. Knappe	39:757-76
Flavoenzyme Catalysis	A. H. Neims, L. Hellerman	39:867-88
Metabolic Role of Vitamins A and D	R. H. Wasserman, R. A. Corradino	40:501-32
Metabolic Roles of Fat-Soluble Vitamins D, E, and K	R. H. Wasserman, A. N. Taylor	41:179-202
X-RAY STUDIES OF STRUCTURE		
X-Ray Diffraction Studies of Enzymes	D. M. Blow, T. A. Steitz	39:63-100



AUTHOR INDEX

A

- Aaes-Jorgensen, E., 131
 Aaij, C., 335, 338, 350, 351, 352, 353
 Aakvaag, A., 207, 223
 Aaronson, S. A., 512
 Aarsman, A. J., 153
 Abel, C. A., 683, 695
 Abeles, R. H., 57, 58, 59, 62, 63, 64, 65, 75, 546, 557, 558, 987
 Abell, L. L., 718
 Abelson, J., 259
 Aberg, B., 102, 103
 Abou-Issa, H. M., 137
 Abraham, D. J., 964
 Abraham, G. E., 108
 Abrams, A., 735
 Abrams, R., 72
 Acampora, M., 884
 Acheson, N. H., 474, 493, 494
 Ackermann, T., 884, 885, 886
 Acree, T. E., 982
 Acton, E. M., 972
 Adair, G. S., 640
 Adam, G., 235
 Adams, E., 636
 Adams, G. H., 704, 714, 720
 Adams, J. M., 383
 Adams, M. J., 527, 529, 817
 Adamson, G. L., 720
 Adamson, J., 976
 Adamson, R. H., 538
 Adelman, M. R., 608, 609, 610, 744
 Adelstein, R. S., 582, 742, 744
 Adesnik, M., 433
 Adhya, S., 317
 Adler, A. J., 250, 252, 880
 Adoutte, A., 362
 Aeberhard, E., 562
 Aebersold, D., 880
 Aebi, H. E., 543, 545, 551
 Agarwal, R. P., 31, 32, 33
 Aggerbeck, L., 714, 718, 722, 726
 Agranoff, B. W., 131, 138, 144
 Agrawal, H. C., 563
 Agrawal, H. O., 478, 479
 Agsteribbe, E., 334, 336, 348, 350, 358, 359
 Aguirre, M., 653, 656
 Ahern, D. G., 165
 Ahern, E. J., 552
 Ahlfors, C. E., 31, 38
 Ahmad-Zadeh, C., 481, 483, 490
 Ahmed, K., 154
 Ahmed, M., 107
 Ahn, C. S., 171
 Ainsworth, C., 817, 838
 Ainsworth, S., 844, 847
 Aizawa, Y., 204, 205, 208
 Ajtal, K., 598
 Akabori, S., 676
 Akers, C. K., 755
 Akers, T. G., 536
 Akervall, K., 475, 476
 Akesson, A., 817
 Akesson, B., 136, 137, 139, 140, 141
 Akgun, S., 718
 Akino, T., 140
 Akiyama, M., 146, 147
 Alaupovic, P., 184, 706, 709, 716, 718, 719, 721, 723
 Albahary, C., 115
 Alberga, A., 207, 208, 212, 213
 Albers, J., 719, 722, 723
 Albers, R. W., 580, 603, 780
 Albert, A., 103
 Albertini, A., 112, 114
 Alberts, A. W., 674
 Alberts, B. M., 256, 262, 263, 264, 308
 Albertsson, P. A., 251
 Albonico, S. M., 165
 Albrecht, G. J., 43
 Albrecht, W. L., 525
 Albro, P. W., 163
 Alden, R. A., 816
 Alder, S. P., 450
 Aldridge, M. H., 108
 Alekseeva, A. A., 102
 Alessio, L., 109, 110, 113
 Alexander, M., 191
 Alexander, P., 538
 Alfassi, Z. B., 889
 Alfes, H., 102
 Alfson, A., 851
 Alihaud, G. P., 674
 Allam, A. M., 81
 Allegra, G., 892
 Allen, A., 692, 694
 Allen, D. M., 546
 Allen, D. W., 110, 112, 829
 Allen, J. E., 171
 Allen, L. C., 871
 Allen, N. E., 349, 359
 Allen, W. S., 675
 Allerhand, A., 969, 983
 Allet, B., 397
 Allfrey, V. G., 674
 Allison, A. C., 494
 Allison, W. S., 258
 Alm, B., 170
 Aloj, S., 114
 Aloni, Y., 348, 349, 351, 354, 356, 357, 509
 Alonson, J. F., 858
 Aloof-Hirsch, S., 151
 Alston, R. E., 972
 Altamura, B. M., 110
 Altman, Z., 884
 Altman, S., 339, 485
 Alving, C. R., 767
 Amaducci, L., 102
 Ambrosi, L., 109, 110
 Ambrus, J. L., 194
 Amelotti, J. M., 191, 192
 Amend, D. F., 102
 Ames, B. N., 788
 Ames, G. F., 788, 789, 790, 802
 Aminoff, D., 688
 Amodio, F. J., 262
 Amons, R., 397, 398
 Amos, L. A., 469
 Anai, M., 456
 Ananthanarayanan, V. S., 892
 Anastasi, A., 97
 Anderegg, J. W., 393
 Andermann, F., 545, 552
 Andersen, H., 165
 Andersen, M. E., 826
 Andersen, N. H., 162, 165
 Anderson, B., 686, 687, 692
 Anderson, B. E., 799
 Anderson, C. G., 945
 Anderson, C. M., 694
 Anderson, D., 487
 Anderson, E. S., 450
 Anderson, E. W., 34, 35
 Anderson, G. F., 191, 198
 Anderson, J. W., 31
 Anderson, K. M., 223
 Anderson, L., 982
 Anderson, N. G., 142
 Anderson, O. R., 186
 Anderson, R. L., 31, 565, 981, 987
 Anderson, S. O., 106
 Anderson, S. R., 849, 850, 852
 Anderson, T. F., 479, 480, 487, 488
 Anderson, W. A., 976

- Anderson, W. A. D., 108
 Anderson, W. B., 270
 Ando, M., 892
 Ando, T., 546, 567
 Andrean, B. A. G., 348
 Andreatta, R. H., 873, 874, 892
 Andreeva, N. S., 892
 Andreoli, T. E., 766
 Andrews, D. M., 756, 757, 759
 Andrews, E. P., 734, 740, 742
 Andrews, P. R., 878
 Anesey, J., 618
 Anfinssen, C. B., 261
 Änggård, E., 162, 163, 164, 165
 Angyal, S. J., 953, 954, 968, 982
 Anker, H. S., 690
 Anraku, N., 262
 Anraku, Y., 788, 796, 801
 Ansari, S., 98
 Anthony, D. D., 280, 288
 Anthony, R. S., 42
 Anwar, R. A., 651, 658
 Aoe, H., 852
 Aoki, K., 109, 563
 Apirion, D., 383, 392, 402
 Aposhian, H. V., 480, 566
 Appel, S. H., 551, 563
 Appell, L. H., 537
 Applebury, M. L., 104
 Applequist, J., 874, 880, 881, 882, 884, 891
 Apps, D. K., 40, 47
 Arai, H., 945
 Arai, T., 449
 Arakawa, N., 589, 593
 Arakawa, S., 873, 874
 Arakawa, T., 545, 547, 557, 559
 Arber, W., 322, 448, 449, 450, 452, 454, 455, 456, 457, 459, 460
 Arbuthnott, J. P., 764
 Archer, E. G., 784
 Archibald, F. M., 142
 Ardailou, R., 115
 Arditti, R. R., 432, 433
 Ardoino, V., 112, 115
 Argen, R. J., 633
 Argos, P., 735, 816, 829
 Argoudelis, A. D., 975
 Arias, I. M., 545, 548, 564, 740
 Ariens, E. J., 937
 Arienti, G., 145
 Ariga, T., 987
 Arigoni, D., 63, 71
 Arima, K., 99
 Arisawa, M., 307
 Armstrong, C. M., 937
 Armstrong, D., 546, 552, 555
 Armstrong, D. T., 216
 Armstrong, J. A., 521, 531, 536
 Armstrong, M. D., 674
 Armstrong, W. McD., 104
 Arnaud, M., 209, 222
 Arnberg, A., 344, 345, 346
 Arnberg, H., 945
 Arnesjo, B., 149
 Arnold, A., 171
 Arnold, H., 31
 Arnold, J. H., 858
 Arnon, D. I., 736
 Arnone, A., 817
 Arnott, S., 236, 237, 524, 525, 874
 Aro, H., 722
 Aronovitch, J., 450
 Aronson, A. J., 435
 Aronson, N. N. Jr., 554
 Aronson, S. M., 560
 Arora, S. K., 964
 Arqueros, L., 930, 931
 Arthur, L. J. H., 562
 Arvidson, G. A. E., 135, 136, 137, 139, 140, 141
 Asadourian, A., 904, 910, 916
 Asahi, R., 976
 Asai, H., 583
 Asakura, S., 584
 Asano, A., 805
 Asano, T., 873
 Asatoor, A. M., 674
 Ashe, G. B., 769
 Ashenbrucker, G. E., 112
 Asher, M., 538
 Ashida, T., 892
 Ashkenazi, Y. E., 565
 Ashley, C. C., 604
 Ashton, K., 31
 Ashwell, G., 688, 689
 Ashwell, M., 334, 348, 350, 351, 358, 359, 367
 Ashworth, L. A. E., 712, 713
 Askonas, B. A., 674
 Aspinall, G. O., 954
 Aspinall, R. L., 168
 Assmann, G., 132
 Asso, J., 478, 479, 496
 Astbury, W. T., 873
 Atger, M., 215, 217, 218, 219
 Atherton, R. S., 31, 32, 44, 45
 Atkinson, A., 745
 Atkinson, P. H., 494, 740, 745
 Attardi, B., 348, 349, 351, 351, 353, 356
 Attardi, G., 338, 347, 348, 349, 350, 351, 352, 353, 354, 356, 357, 366
 Atton, F. M., 102
 Attramadal, A., 205, 207
 Aub, J. C., 113
 Auer, H. E., 880, 889
 August, J. T., 259, 473
 Augustyn, J. M., 148, 149, 150, 154
 Auld, P., 57, 58
 Aune, K., 877
 Aurbach, G. D., 171
 Austen, B. M., 698
 Austin, J., 546, 552, 555
 Austin, W., 142
 Avers, C. J., 346
 Avi-Dor, Y., 859
 Avigad, G., 983
 Avigan, J., 545
 Avioli, L. V., 180
 Avner, P. R., 362, 363
 Awasthi, Y. C., 150
 Axelrod, D., 509
 Axelrod, J., 207, 926, 932
 Axelsson, B., 106, 108
 Axelsson, J., 946, 948
 Axen, U., 163
 Axman, M. C., 205
 Ayad, S., 654
 Ayer, J. P., 640
 Ayres, P., 191
 Azarnia, N., 962, 963
 Azzi, A., 858, 859
- B
- Babiars, D., 171
 Babicky, A., 102
 Cabinet, C., 411
 Babiore, B. M., 56, 67, 68, 69, 70, 194, 196
 Babkin, P. P., 691, 692, 694
 Bachelard, H. S., 32, 40, 41
 Bachhawat, B. K., 675
 Bacht, M., 165
 Backer, R. R., 848
 Backhouse, J., 180
 Backman, K., 874
 Baddiley, J., 976
 Bader, J., 474
 Bader, J. P., 511
 Baenziger, J., 680, 684
 Baenziger, N. L., 745
 Baer, B. S., 450
 Baer, H. H., 873
 Baggett, B., 207, 208
 Baglioni, C., 359
 Bahl, O. P., 677
 Baic, D., 108
 Baierlein, R., 383
 Bailey, A. J., 618, 653, 654, 655, 656, 657, 674
 Bailey, J. M., 983, 984
 Bailin, G., 578
 Baird, S. L., 244
 Bak, A. Leth, 334, 339, 340
 Bakay, B., 549, 568
 Baker, E., 112
 Baker, H., 580, 601

- Baker, J. J., 70
 Baker, J. R., 686
 Baker, J. T., 108
 Baker, L., 545, 546, 547, 548, 549
 Baker, R. R., 140
 Balakrishnan, G., 141, 144
 Balassa, J. J., 108
 Balasubramanian, D., 880
 Balazs, E. A., 618, 640
 Balcarova, Z., 244
 Baldwin, E., 33
 Baldwin, G. S., 674, 684
 Baldwin, R. L., 254, 255
 Balgobin, L., 557
 Balian, G., 618, 621, 622, 625, 626, 627
 Balint, J. A., 139, 142
 Balis, M. E., 551, 567
 Ball, G., 171
 Ballio, A., 975
 Ballou, C. E., 105
 Baltimore, B. G., 55, 60, 62
 Baltimore, D., 474, 478, 479, 496, 511, 535
 Baluda, M. C., 545, 549
 Bamford, C. H., 870, 873
 Bancroft, F. C., 481
 Bancroft, J. B., 472, 484, 495, 496
 Bandi, P. C., 135
 Bandi, Z. L., 131
 Bandyopadhyay, A. K., 695
 Bangham, A. D., 763-76; 722, 754, 755, 759, 760, 761, 762, 763, 765, 766, 767, 768, 769, 770, 771
 Bangham, J. A., 766
 Bank, A., 550
 Bank, W. J., 31, 32
 Banks, B. E. C., 148
 Banks, G. T., 520
 Banks, P., 930, 932
 Bannerman, R. M., 112
 Bannister, D., 450, 459
 Baptista, M. H., 165
 Barany, K., 578, 599
 Barany, M., 578, 597, 599, 602
 Barash, I. M., 984
 Barban, S., 475, 507
 Barbaro, M., 108
 Barber, A. A., 186
 Barber, A. J., 663, 696, 732, 740
 Barber, B., 20
 Barber, G. W., 557, 559
 Barberini, B., 107
 Barbiroli, B., 204
 Barclay, M., 142
 Barden, R. E., 137
 Bardin, C. W., 215, 216
 Barenboim, G. M., 843
 Barford, A. D., 976
 Bargoot, F. G., 708, 715
 Barker, B., 309
 Barker, H. A., 55-90; 55, 56, 60, 62, 70, 83, 85, 101
 Barker, K. L., 205, 206, 222
 Barker, R., 983
 Barker, W. M., 193
 Barkley, W., 114
 Barksdale, L., 450
 Barlogie, B., 606
 Barlow, M., 965
 Barltrop, D., 113, 114
 Barman, T. E., 49
 Barnard, E. A., 31, 45
 Barnea, A., 206, 222
 Barnes, D. G., 879
 Barnes, E. M. Jr., 805, 806
 Barnes, N. B., 31
 Barnes, N. D., 557
 Barnes, S. L., 481, 483, 486, 496
 Barness, L. A., 59, 186, 545, 546, 557, 558, 562
 Barnett, J. E. G., 977, 985
 Barnett, L., 380, 427
 Barnett, W. E., 351
 Barnhart, M. I., 198
 Baron, C., 735
 Baron, S., 522, 533, 537
 Barouch, W. W., 601
 Barquet-Chediak, A., 546
 Barr, D. P., 721
 Barratt, M. D., 708
 Barrell, B. G., 383, 387
 Barrett, K., 412
 Barrio, J. R., 860
 Barron, E. S. G., 106
 Barrow, K. D., 975
 Barry, C. D., 961
 Barry, E., 169
 Barry, J., 204, 205
 Barry, P. S. I., 109
 Barry, W. H., 860
 Barskaya, T. V., 885
 Barson, A. J., 552, 556
 Bartels, E., 937, 939, 940
 Bartels, J., 163
 Barter, R. H., 559
 Barth, P. T., 324
 Bartl, P., 314
 Bartley, W., 142
 Barton, P. G., 762, 765
 Barton, R. W., 204
 Bartoov, B., 348, 353
 Barzilai, R., 311
 Barzilai, M., 149, 151
 Basch, H., 870, 878
 Basford, R. E., 32
 Basilico, C., 347, 504
 Basloe, J. L., 977
 Bassow, H., 97
 Batcheler, M. L., 481, 485
 Batchelor, R. P., 92
 Batolska, A., 110
 Batterham, T. J., 72
 Battifora, H. A., 114
 Battigelli, M. C., 97
 Battistini, V., 112, 115
 Bau, D. C. K., 546
 Bauer, E. A., 660
 Bauer, V. A., 75
 Bauer, W., 245
 Baughan, M. A., 546
 Baulieu, E. E., 206, 207, 208, 209, 210, 212, 213, 215, 217, 218, 219, 221, 222, 223
 Baum, J., 108
 Bauman, A., 943
 Baumann, P., 43
 Baumann, W. J., 135
 Baumgartner, W., 188
 Bausek, G. H., 521, 522, 527, 530
 Bautz, E. K. F., 278, 279, 281, 283, 284, 285, 286, 287, 287, 290, 412, 413, 417, 420, 427, 428, 429
 Bautz, F. A., 278, 279, 281, 283, 284, 285, 286, 287, 290, 412, 420, 424, 427, 428
 Bavetta, L. A., 654
 Baxandall, J., 99
 Baxter, J. D., 223
 Bayer, E., 970
 Bayer, M. E., 476, 480
 Baylor, M. B., 488
 Bayston, J. H., 73
 Bazan, N. G. Jr., 154
 Bazell, R. J., 114
 Bazill, G. W., 303, 305
 Beale, J. P., 962, 963
 Bear, R. S., 627, 754
 Beardsley, K., 855
 Beare, A. S., 537
 Beare, J. L., 153
 Bearn, A. G., 568
 Bearse, G. E., 102
 Beato, M., 223
 Beattie, A. D., 115
 Beattie, D. S., 146, 147, 334, 348, 350, 358, 359
 Beaver, D. L., 110
 Beck, C. S., 732
 Beck, N. P., 171
 Beck, W. S., 75
 Becker, J. A., 171
 Becker, J. W., 817, 838
 Becker, Y., 367, 494, 738
 Beckmann, J. S., 414
 Beckwith, J., 270, 431, 439
 Beckwith, J. R., 264, 265, 270, 410, 431, 432
 Becroft, D. M., 564
 Bedwani, J. R., 171
 Beecham, J., 881
 Beeler, D. A., 139, 142
 Beeman, W. W., 237
 Beerthuis, R. K., 163

- Beevers, C. A., 963
 Beguin, F., 481, 484
 Behnke, O., 745
 Beining, P. R., 104
 Beisson, J., 362
 Belamarich, F. A., 609
 Bell, C. L., 873
 Bell, O. E. Jr., 132, 133
 Bell, R. G., 191, 192, 195
 Bellamy, A. R., 259
 Bellamy, G., 631, 632
 Beller, R. J., 383
 Belhorn, M. B., 734
 Bemfeld, M. R., 674
 Ben-Abdelkader, A., 146
 Benbow, R. M., 316, 476, 477
 Bender, W. W., 741, 743, 744, 747
 Bendet, I. J., 481, 483
 Bendich, A. J., 368
 Benditt, E. P., 654
 Benedek, G. B., 481
 Benedetti, E., 878, 880
 Benedetti, E. L., 732
 Benes, I., 108
 Benesch, R., 97, 822
 Benesch, R. E., 822
 Ben-Ezzer, J., 546
 Benjamin, T. L., 367, 505, 508
 Benjamini, E., 625
 Benke, P., 568
 Benko, P. V., 794
 Bennett, A., 162
 Bennett, H. S., 929
 Bennett, J. C., 854
 Bennett, P. M., 592, 593
 Bennett, R. L., 783
 Bennick, A., 693
 Benoit, H., 873
 Ben-Porat, T., 474, 494
 Bensaude, I., 987
 Ben-Shaul, Y., 337
 Benson, E. S., 904
 Benson, R. W., 595
 Bensusan, H. B., 906, 916, 921
 Bentley, R., 953-96; 959, 971, 982, 985, 989
 Benyesh-Melnick, M., 474
 Benz, R., 766
 Benziman, M., 34
 Beppu, T., 99
 Berdancier, C. D., 193
 Berezney, R., 142, 143, 150
 Berg, C. M., 316, 317, 320
 Berg, D., 277, 278, 412
 Berg, D. K., 946, 947
 Berg, H. C., 740, 741, 743, 744, 747
 Berg, K., 722
 Berg, M. H., 108
 Berg, P., 16, 279, 280, 281, 282, 283, 284, 285, 508
 Berger, A., 869-902; 151, 870, 879, 880, 884, 885, 886, 888, 889, 890, 891, 892, 893, 904, 909, 910, 911, 917, 918
 Berger, E. A., 793
 Berger, H., 309
 Berger, J., 105
 Berger, N. A., 241, 242
 Bergkvist, H., 162
 Berglund, F., 102, 103
 Bergström, S., 161, 164
 Berking, B., 962
 Berkower, I., 308
 Berl, S., 609
 Berlin, M., 102, 103, 108
 Berman, B. J., 518
 Berman, H. M., 962, 963, 965
 Berman, M., 16
 Bernacki, R. J., 194
 Bernardi, G., 338, 339, 340, 364
 Bernardini, A., 509
 Berne, T., 207
 Bernfield, P., 718
 Bernheimer, A. W., 764
 Bernier, G. M., 690
 Bernstein, J. A., 345
 Berry, S. J., 75
 Bersohn, R., 244
 Bersot, T., 722
 Bertani, G., 448
 Bertilsson, L., 83, 100, 101
 Bertini, M., 108
 Bertolini, M., 688
 Bertram, E. C., 106
 Bertram, M. R., 106
 Bertrand, G., 92, 93
 Bertrand, G. L., 769
 Bessada, R., 210, 213
 Bessell, C. J., 538
 Bessell, E. M., 976, 977
 Bessis, M., 110, 113
 Best-Belpomme, M., 210, 213
 Bethge, P. H., 816
 Bettelheim, F. R., 674
 Bettex-Galland, M., 744
 Betz, W. J., 934
 Beutler, E., 545, 549
 Bevan, M. J., 674
 Beychok, S., 686, 687, 692, 873, 879, 880
 Beyer, R. E., 194
 Beyersmann, D., 323
 Beylis, P., 976
 Beyreuther, K., 265
 Beytia, E., 40
 Beziat, Y., 209, 222
 Bhacca, N. S., 965, 966, 969
 Bhagavan, H. N., 184
 Bhana, D., 162
 Bhargava, A. S., 681, 691
 Bhasker, K. R., 904
 Bhatnagar, R. S., 634, 635
 Bhattacharjee, R. C., 92
 Bhaumik, M. L., 846
 Bhoyroo, V. D., 674
 Bialy, H. S., 535
 Bianchetti, R., 351
 Biasion, M. G., 145
 Bibring, T., 99
 Bicchi, A., 880
 Bickel, H., 547
 Bieber, L. L., 152, 153, 154
 Bielawski, J., 766
 Bier, D. M., 722, 723
 Bieri, J. G., 185
 Biesewig, D., 223
 Bieter, R. N., 519
 Biggs, D. R., 360, 361, 365
 Bihler, I., 804
 Biller, M. A., 383
 Billheimer, F. E., 507
 Billing, R. J., 204
 Billups, C., 880
 Binder, M., 660
 Bing, D. H., 70
 Bingham, S., 114
 Birch, P. J., 537
 Bird, R. E., 317, 321, 322, 912, 917
 Birge, E. A., 390, 391, 392, 401
 Birkenmeyer, R. D., 975
 Birkett, D. J., 852
 Birkmayer, G. D., 359
 Birks, R. I., 933, 934, 935
 Birktoft, J. J., 816
 Birnbaum, E. R., 33
 Birnbaum, H., 196, 197
 Birnbaumer, M. E., 708, 714, 715, 716, 717
 Birshtein, T. M., 870, 874, 875, 880, 882
 Bisaz, S., 110
 Bisby, M. A., 936
 Bischoff, F., 113
 Bischoff, R., 609
 Bishop, H. H., 140
 Bishop, K. S., 182
 Biswas, C., 30, 31
 Biswas, D. K., 57, 210, 213
 Bittman, J., 204
 Bittman, R., 855
 Bixler, D., 691, 693
 Bixon, M., 882, 883, 884, 885, 886, 887, 888, 889, 892
 Bizzi, A., 171
 Bjorklund, R., 713
 Black, D. R., 523
 Black, L. W., 426, 481, 483
 Blackburn, B. J., 243
 Blackburn, C. R. B., 113

- Blackler, A. W., 341, 344
 Blackley, R. L., 106
 Blackwell, E., 145
 Blackwood, A. C., 105
 Blair, D. G., 337
 Blair-West, J. R., 168
 Blake, A., 244
 Blake, C. C. F., 878
 Blakemore, W. S., 108
 Blakley, R. L., 56, 72, 74,
 75, 78, 80
 Blanchard, M. H., 582
 Blank, G., 959
 Blank, M. L., 130, 131, 132,
 133, 134, 135
 Blaschko, H., 930, 931
 Blasie, J. K., 843
 Blaskovics, M. E., 547, 550,
 562
 Blass, J. P., 545
 Blatchley, F. R., 163
 Blauer, G., 889
 Blaurock, A. E., 721, 722,
 733, 755
 Blaylock, B. A., 80, 81, 82,
 83, 101
 Blazek, Z., 102
 Blecher, M., 170
 Blethen, S. L., 31, 43, 45
 Bleyman, M., 433
 Bloch, K. J., 660
 Block, G. E., 207, 208,
 210
 Block, H., 892
 Block, R., 410, 432, 433
 Block, R. M., 387
 Blok, M. C., 146, 147
 Blondeau, J. P., 223
 Bloom, F. E., 169
 Bloom, G., 171
 Bloom, G. E., 546
 Bloth, B., 722
 Blough, H. A., 494
 Blount, J. F., 957
 Blout, E. R., 636, 660, 870,
 874, 879, 880, 890, 892, 904,
 910, 916
 Blow, D. M., 815, 816, 818,
 913, 916
 Blume, K. G., 31, 546
 Blumenfeld, O., 674
 Blumenfeld, O. O., 617-72;
 626, 654, 655, 656, 657,
 658, 659, 660, 734, 740,
 742
 Blumenkrantz, N., 634, 675,
 688, 690
 Blundell, T. L., 817
 Boardman, N. K., 334
 Bobinski, H., 673, 674
 Bock, R. M., 30
 Bockman, R., 873
 Bode, V. C., 421
 Bodenheimer, E., 880
 Bodo, G., 518
 Boedtker, H., 258
 Boehner, S., 484
 Boetius, J., 102
 Boezi, J. A., 791, 793
 Bogdanov, A. A., 397
 Boggs, D. E., 562
 Bogorad, L., 349
 Boguth, W., 185
 Bohacek, J., 244
 Böhle, E., 171
 Bohman, S. O., 163, 164,
 165
 Bohn, E., 162
 Bohn, G., 108
 Bohr, N., 21
 Boiko, Z. F., 115
 Boiron, M., 348
 Bojalil, L. F., 785
 Bolanowska, W., 97, 102,
 115
 Bolis, L., 722
 Bolle, A., 380, 381, 425,
 426, 427, 487, 489
 Bollen, A., 391, 396,
 403
 Bolotin, M., 362
 Bolotina, I. A., 885
 Boman, H., 722
 Bomstein, R., 736
 Bond, R. L., 767
 Bond, R. P. M., 976
 Bone, A. H., 563
 Bonhoeffer, F., 301-32;
 302, 307, 309, 310, 311,
 321, 325
 Boni, R., 873, 884, 885,
 886
 Bonner, J., 250, 252, 253,
 674
 Bonsen, P. P. M., 147,
 148, 149, 150, 152, 767
 Bonsignore, D., 110, 112,
 114, 115
 Bonting, S. L., 765, 780
 Bookchin, R. M., 674
 Booker, D. V., 114
 Boos, W., 779, 796, 802,
 803
 Booyse, F. M., 744, 745
 Borchgrevink, C. F., 194
 Borden, E. C., 527, 528,
 529, 530, 532
 Borders, C. L. Jr., 985
 Borecky, L., 538
 Borek, C., 513
 Borek, E., 205
 Borel, M., 31, 36, 40
 Borenstein, S., 322
 Borisova, O. F., 855
 Borisy, G. G., 608, 609
 Born, M., 7, 22
 Bornmann, G., 102
 Bornstein, I., 681
 Bornstein, P., 618, 619,
 621, 622, 623, 624, 625,
 626, 627, 629, 631, 632,
 636, 640, 651, 652, 653,
 654, 656, 662
 Borre, E., 520
 Borsook, H., 690
 Borst, P., 233-76; 144, 319,
 334, 335, 336, 337, 338,
 339, 340, 342, 344, 345,
 346, 347, 348, 349, 350,
 351, 352, 353, 354, 355,
 356, 358, 359, 363, 364,
 365, 369
 Bosmann, H. B., 194, 347,
 353, 690, 696, 697, 732
 Botchan, M., 252
 Botes, D. P., 151, 945
 Botstein, D., 319, 327
 Botts, J., 583
 Boublik, M., 253
 Bouchilloux, S., 691
 Bouissou, H., 108
 Boulanger, P., 688
 Bourali, C., 538
 Bourgaux, P., 507
 Bourgaux-Ramoisy, D., 507
 Bourgeois, S., 265, 266, 267,
 268, 269, 273, 274, 275,
 280, 411, 431, 432, 529
 Bourne, E. J., 691
 Bourne, H. R., 171
 Bourrillon, R., 679
 Bové, J. L., 114
 Bovey, F. A., 870, 873, 878,
 870, 880, 881, 882, 891,
 904, 909
 Bowden, J. A., 563
 Bowen, W. J., 603
 Bowery, N. G., 168
 Bowie, E. J. W., 194
 Bowman, A., 651
 Bowman, C. M., 393
 Bowman, W. C., 929
 Bownds, D., 735, 740
 Boxaca, M., 528, 529, 532
 Boyce, D. W., 172, 180
 Boyce, R. P., 326, 438
 Boyd, G. S., 724
 Boyd, I. A., 928
 Boy de la Tour, E., 480
 Boyer, H., 448, 449, 450,
 452, 453, 454, 459, 460,
 461
 Boyer, P. D., 30, 33, 34,
 38, 40, 41, 42, 43, 47, 48,
 97, 595, 805, 806, 818
 Boyle, C. M., 191
 Boyle, I., 180
 Boyle, J. A., 561, 567
 Braams, W. G., 185
 Brachet, P., 320, 327
 Bradbeer, C., 66
 Bradbury, E. M., 253, 873,
 874, 891
 Bradbury, J. H., 875, 876,
 880, 889
 Bradford, R. H., 723
 Bradley, D. E., 479, 480
 Bradley, D. F., 879
 Bradley, K., 552, 557
 Bradley, L. B., 107
 Bradley, P. B., 169

- Bradley, R. M., 513, 545, 552, 555
 Bradon, D., 734, 744, 745
 Brady, G. W., 885
 Brady, R. D., 513
 Brady, R. O., 132, 545, 550, 552, 554, 555, 561, 696, 987
 Braganca, B. M., 148, 150, 151
 Bragg, J. K., 882, 883, 884, 888, 891
 Brahms, J., 255, 879
 Bram, S., 237, 240, 252, 286
 Brambl, R. M., 336
 Bramley, T. A., 756
 Brancaccio, A., 112
 Brancato, G., 102
 Brand, L., 843-68; 843, 844, 845, 846, 847, 848, 850, 851, 852
 Branden, C. I., 817
 Brändle, W., 223
 Brandt, J., 538
 Brandt, R., 984
 Branscomb, E. W., 269
 Branson, H. R., 873, 874
 Brant, D. A., 875, 876, 877
 Branton, D., 480, 744, 745, 747, 756
 Braun, J. T., 565
 Braun, P. E., 737
 Braun, R., 346
 Braun, W., 520
 Braunsberg, H., 207
 Braunstein, S. N., 492
 Braxton, H., 816
 Bray, D., 744
 Bream, P. R., 115
 Brecher, P. I., 207, 211, 212, 213, 220, 221, 222
 Breckenridge, W. C., 135, 139, 141
 Breese, G. R., 935
 Brega, A., 348, 359
 Breinig, M. K., 532
 Breittkreutz, D., 619, 623
 Breitmaier, E., 970
 Bremel, R. D., 588, 589, 604
 Bremer, H., 280, 281, 288
 Bremer, J., 137, 144
 Brenner, S., 315, 380, 381, 388, 427, 475, 480, 487
 Brenton, D. P., 564
 Brereton, G. G., 171
 Breschkin, A. M., 316, 318
 Bresciani, F., 207, 209, 210, 212, 213, 214
 Breslow, E., 879
 Bretscher, M. S., 381, 402, 734, 740, 741, 742, 743, 744, 747
 Brewster, A. I., 873, 878, 881
 Bridger, W. A., 43
 Brierley, G. P., 107
 Brighetti, S., 881, 886
 Bright, D., 766
 Bright, H. J., 636
 Brighton, W. D., 745
 Brimacombe, J. S., 954, 962, 969
 Brindley, D. N., 139, 145
 Brink, N. G., 520
 Brintzinger, H., 35
 Briskey, E. J., 593
 Britten, A. G., 942, 947
 Britten, R., 111
 Britten, R. J., 788
 Brock, W. A., 163
 Brockes, J. P., 449, 457
 Brocklehurst, J. R., 849, 857, 859
 Brockman, W. W., 528, 530
 Broda, P., 316, 317
 Brodie, A. F., 805
 Brodie, G. N., 745
 Brodie, J. D., 60, 76, 78, 79, 85, 100
 Brody, E., 427
 Brody, E. N., 277, 278, 426, 427, 429, 430
 Brody, O. V., 743, 744
 Broker, T. R., 316, 336
 Bromstrup, K., 310, 314
 Bromwell, K. E., 790
 Brookes, K. B., 144
 Brookman, K., 414, 415, 434
 Brooks, D. E., 762
 Brooks, J. C., 736
 Brooks, S. C., 207
 Brooks, S. K., 187, 188
 Broomfield, C. A., 148
 Brostoff, S., 674, 733, 735, 737
 Brostou, S., 737
 Brostrom, C. O., 33
 Brot, N., 75, 81, 380
 Brown, B. I., 545, 565
 Brown, D., 582
 Brown, D. C., 525, 537
 Brown, D. D., 335, 341
 Brown, D. G., 68, 81
 Brown, D. T., 476
 Brown, E. G., 112
 Brown, F., 738, 746
 Brown, H., 545
 Brown, I. H., 337
 Brown, J. B., 713
 Brown, J. R., 102
 Brown, K. D., 780, 789, 790
 Brown, L., 873
 Brown, M. S., 559
 Brown, P. R., 96, 449, 457
 Brown, R. D., 419, 426
 Brown, R. G., 187
 Brown, S., 115
 Brown, W., 591, 593
 Brown, W. E., 162
 Brown, W. J., 98
 Brown, W. M., 341
 Brown, W. V., 719, 720, 723
 Brownlee, G. G., 387, 433
 Brownson, C., 72
 Brownstein, B., 392
 Brubaker, P. E., 99
 Bruce, A. L., 737
 Bruckdorfer, K. R., 718
 Brueggmann, J. A., 207
 Brufani, M., 975
 Brugnone, F., 116
 Brunk, C. F., 334
 Brunori, M., 850
 Brush, M. G., 207
 Brutlag, D., 311
 Bryan, J. G. H., 962
 Bryan, W. P., 904, 910, 911, 914
 Bryant, M. P., 81, 101
 Bryson, M. J., 207
 Bublitz, C., 106
 Buchanan, B. B., 736
 Buchanan, J. M., 75, 80, 425, 426, 429
 Bücher, T., 31, 33, 46, 48, 146, 348, 359
 Buck, C. A., 337, 338, 351, 352, 357
 Buck, K. W., 520
 Buckelew, A. R., 764
 Buckler, C. E., 533
 Buckman, J., 108
 Buczkowski, M., 113
 Budd, M. A., 546
 Buddecke, E., 691
 Budreau, A., 786
 Budzynski, A. Z., 904
 Bueding, E., 675
 Bugg, C. E., 964
 Bugge, G., 334, 336, 354, 356, 358
 Bulbrook, R. D., 207
 Bull, R. H., 891
 Buller, A. J., 603
 Bumpus, F. M., 708
 Bundy, G., 161, 162
 Bunim, J. J., 545
 Bunn, C. L., 350, 362
 Bunting, R., 562
 Bunyan, J., 189
 Burbach-Westerhuis, G. J., 147, 152
 Burch, G. E., 108
 Burdett, I., 348
 Burdon, R. H., 674
 Burge, B. W., 474, 494, 738
 Burge, R. E., 754, 755, 758
 Burger, M. M., 505, 506
 Burger, R. M., 302, 305, 311
 Burgess, A. B., 477

Burgess, E. A., 545, 548
 Burgess, R. R., 276, 277,
 278, 279, 286, 287, 288, 411,
 412, 413, 417, 429
 Burghardt, C. R., 171
 Burgher, C. M., 691, 693
 Burgl, E., 421
 Bûrgl, W., 546
 Burke, D. C., 519, 527, 530,
 532, 534
 Burke, G., 171
 Burke, G. T., 76, 78, 100
 Burke, M., 592
 Burlingham, B. T., 476
 Burnett, P., 733, 735, 737
 Burns, V. W. F., 855
 Burnstock, G., 929
 Burr, M., 853
 Burrows, S. E., 791
 Burstein, M., 705
 Burstein, S., 163
 Burstein, Y., 97
 Burt, W. L., 538
 Busch, D., 31
 Bush, C. A., 880
 Bush, I. E., 213
 Bushweller, C. H., 878
 Bussey, H., 788
 Butcher, R. W., 170, 171
 Butler, P. J. G., 469, 470,
 471, 472, 495
 Bûttler, R., 722
 Butler, W. T., 618, 619, 621,
 622, 625, 626, 627, 629,
 676
 Butow, R. A., 353, 359, 361,
 604
 Buttin, G., 456, 796
 Button, G. M., 187
 Butzow, J. J., 241
 Buzhinsky, E. P., 766
 Byerrum, R. U., 108
 Bygdeman, M., 162
 Bygrave, F. L., 145, 146
 Bynoe, M. L., 537
 Byrne, R. H., 904, 910, 911,
 914
 Bystrov, V. F., 873, 881

C

Caasi, P. I., 187, 188
 Caccam, J., 733, 735, 737
 Cah, F. C., 609
 Caillet, J., 872
 Cain, D. F., 606
 Cairns, J., 307, 318, 321
 Calapaj, G. G., 109, 110,
 113
 Caldwell, B. V., 163
 Caldwell, D. J., 879
 Caldwell, I. C., 567
 Calef, E., 421
 Calendar, R., 410, 411, 420,
 421, 425, 479, 480, 483
 Caliguiri, L. A., 474, 493,
 494, 746, 747

Calissano, P., 112, 114,
 763, 765
 Callahan, J., 545, 552,
 987
 Callan, E. A., 511
 Callantine, M. R., 207,
 208, 216, 218
 Callender, J., 504, 505
 Calvert, C. C., 184
 Camejo, G., 710, 711, 712,
 713
 Camerini-Otero, R. D.,
 492, 738, 746, 747
 Camerman, A., 848
 Cameron, D., 546
 Cammarata, P. S., 168
 Campbell, A. G. M., 546,
 550
 Campbell, A. J. R., 888
 Campbell, A. N., 888
 Campbell, H. A., 190
 Campbell, I. M., 971, 982
 Candura, F., 112
 Canedo, L., 484
 Canelo, E. S., 491, 492
 Canepa, F. G., 929
 Cantagalli, P., 532
 Cantell, K., 528, 532
 Cantoni, G. L., 247
 Cantor, C. R., 237, 238,
 286, 855
 Cantrell, E. G., 692
 Cantz, M. J., 550, 554,
 565
 Capecchi, M. R., 381,
 382
 Capon, B., 954
 Cardiff, R. D., 510
 Cardinale, A., 102
 Cardinale, G. J., 57, 58,
 59, 546, 557, 558, 637,
 638
 Carlsen, F., 591
 Carlsen, R. B., 676, 677
 Carlson, D. M., 681, 696
 Carlson, F. D., 607
 Carlson, L. A., 161, 171
 Carnegie, P. R., 674, 684,
 733, 735
 Carnes, W. H., 640, 654
 Carnevali, F., 364, 365
 Carnay, L., 860
 Caro, L. G., 316, 317,
 320
 Caroline, N. L., 538
 Carpenedo, F., 169
 Carpenter, B. G., 873, 874,
 891
 Carpenter, C. C. J. Jr.,
 168, 169
 Carpenter, J. L., 114
 Carpenter, J. M., 470,
 471
 Carpenter, M. P., 163
 Carpenter, P. C., 188
 Carpenter, S. J., 107
 Carr, S., 562
 Carraway, K. L., 740
 Carre, I. J., 567
 Carrell, R. W., 543, 551
 Carrier, W. L., 547
 Carroll, K. G., 110
 Carson, J., 469
 Carson, N. A. J., 567
 Carson, S. B., 92
 Carswell, F., 112, 115
 Cartasegna, C., 110, 112,
 114, 115
 Carter, C. E., 334, 335
 Carter, J. R., 144
 Carter, S., 546
 Carter, W. A., 528, 529,
 530, 534
 Cartwright, B., 738, 746
 Cartwright, E., 433
 Cartwright, G. E., 112
 Carty, T. J., 58
 Carvalho, A. P., 604
 Carver, J. P., 870, 873,
 874, 890, 892
 Caryk, T., 382
 Cascino, A., 426, 429,
 487
 Casey, E. C., 545
 Casey, J., 347, 351, 352,
 357, 364, 365, 366
 Cashel, M., 434
 Casjens, S., 479
 Caskey, C. T., 382
 Caspar, D. L. D., 467, 468,
 469, 471, 472, 487, 492,
 495, 585, 593, 738, 737,
 738, 744, 746, 747
 Cass, A., 766
 Cassani, G., 288
 Cassano, G. B., 102
 Cassina, I., 102
 Cassingena, R., 526, 527,
 533
 Cassoly, R., 823
 Castellino, N., 114
 Casu, A., 142
 Casu, B., 968
 Caswell, A., 857
 Caswell, A. H., 858
 Cates, M., 110
 Catignani, G. L., 188
 Catterell, W. A., 736
 Cauvin, E., 735
 Cavalleri, L. F., 324, 325
 Cavanagh, H. E., 735, 740
 Cavanaugh, J. R., 873
 Cawthorne, M. A., 169
 Cebula, T. A., 848
 Cecil, H. C., 204
 Cecil, R., 97
 Cederbaum, S., 60, 61
 Celma, M. L., 381, 402
 Cember, H., 102
 Centifanto, Y. M., 525,
 537
 Century, B., 187
 Cepure, A., 684
 Cepurneek, C. P., 692, 693

- Cerami, A., 245, 246
 Cerbon, J., 768
 Cerdá-Olmedo, E., 318
 Cerná, H., 367
 Cerrini, S., 975
 Cha, C.-Y., 918
 Chabaud, J. P., 214
 Chacko, C. M., 549, 568
 Chader, G. J., 211, 212, 220, 221
 Chadwick, P., 272, 273, 274, 275, 423, 424, 529
 Chagas, C., 941
 Chain, E. B., 520
 Chakrabarti, S. K., 847
 Chakrapani, B., 675
 Chakrin, L. W., 694
 Chalkley, G. R., 208, 209
 Challoner, D. R., 189
 Chamberlain, A. C., 114
 Chamberlin, M. J., 276, 277, 278, 279, 280, 284, 285, 287, 290, 410, 412, 419, 420, 421, 425, 522, 523, 525
 Chambers, D. A., 431
 Champe, S. P., 483
 Champous, J. J., 421
 Chan, L. M., 244, 855
 Chan, S. H. P., 736
 Chan, S. O., 904
 Chance, B., 142, 843, 859
 Chandrasekaran, R., 873, 874, 881
 Chandrasekharan, V., 879
 Chang, C. C., 945, 946
 Chang, F. M., 394
 Chang, T. M. S., 565
 Chang, Y. S., 469
 Chang, Y.-Y., 144
 Changeux, J.-P., 860, 937, 938, 940, 942, 943, 944, 946, 947
 Chanock, R. M., 537
 Chany, C., 526, 527, 533
 Chao, F. C., 733, 735, 737
 Chapman, A., 46
 Chapman, D., 707, 715, 722, 755, 766, 768, 769
 Chapman, V. A., 484, 487, 490
 Chappell, J. B., 766
 Charalampous, F. C., 359
 Charet, P., 679
 Chargaff, E., 436
 Chariton, J. P., 858
 Charney, E., 873, 884
 Chase, J. W., 348, 349, 350, 351
 Chase, L. R., 171
 Chassy, B. M., 74
 Chaudhuri, S. R., 889
 Cheffell, C., 691
 Chelala, C. A., 415, 416
 Cheldelin, V. H., 57
 Chen, A. K., 880, 884
 Chen, B., 271, 433
 Chen, C., 738, 747
 Chen, R. F., 97, 851, 853
 Chen, T., 180
 Chen, W. L., 359
 Cheng, H. C., 599
 Cheng, P.-Y., 98, 423
 Chernyak, A. Ya., 970
 Cheung, H. C., 858
 Chevalier, J., 604
 Chi, J. C. H., 349, 361
 Chiang-Teng, C., 545, 547
 Chiappino, G., 106, 108
 Chiba, H., 106
 Chiesura, P., 112, 114, 116
 Childs, B., 568
 Chinard, F. P., 97
 Chio, K. S., 189
 Chiquoine, A. D., 108
 Chittenden, G. J. F., 976
 Chiu, C. S., 31, 46
 Chiu, M., 184
 Chiu, T. H., 946
 Chizhov, O. S., 970
 Chock, S. P., 978
 Choi, N. S., 870
 Choi, Y. S., 679, 690, 691
 Choepke, M., 597, 598
 Choppin, P. W., 474, 493, 494, 738, 746, 747
 Chopra, I., 107
 Chou, F., 737
 Chou, P. Y., 884, 886
 Chouroulinkov, I., 538
 Chow, T. J., 114
 Chow, W. S., 640
 Chrambach, A., 398, 740
 Chrispeels, M. J., 674
 Christensen, M. N., 934
 Christensen, H. N., 778, 784, 786, 787, 791, 792, 794, 804
 Christensen, M. S., 797
 Christensen, P. A., 945
 Christensen, T. B., 690
 Christian, J. C., 549
 Christian, R. G., 115
 Christian, S. T., 851
 Christiansen, C., 334, 339, 340
 Christiansen, G., 339, 340
 Christiansen, P. A., 186
 Christie, W. H., 131
 Chu, L. L. H., 223
 Chu, T. M., 975
 Chuang, D., 921
 Chubb, I. W., 932, 936
 Chubb, R. C., 511
 Chuck, G., 565
 Churaev, N., 767
 Church, R. B., 205
 Church, R. L., 631, 632
 Ciaccio, L. A., 216
 Ciani, S. M., 766, 767
 Ciferri, A., 880, 887
 Ciferri, O., 348
 Cifonelli, J. A., 686
 Cikrt, M., 102
 Cirillo, V. P., 171, 797
 Cirila, A. M., 102, 108
 Cirstea, A., 106, 107, 108
 Cittanova, N., 851
 Clamp, J. R., 679, 684, 690
 Clark, A. G., 40, 41
 Clark, A. J., 308
 Clark, A. W., 933
 Clark, B. F. C., 383, 384
 Clark, C. K., 481, 485
 Clark, G. L., 754
 Clark, J., 207, 210, 213
 Clark, M. F., 367
 Clark, P., 241
 Clark, R. J., 253
 Clark, R. R., 110
 Clark, S. H., 545, 547
 Clarke, A. E., 692
 Clarke, A. J., 108
 Clarke, J. T. R., 545, 552, 555, 987
 Clarke, M., 734, 740
 Clarkson, K., 433, 434
 Clarkson, T. W., 97, 103, 113
 Clasen, R. A., 114
 Claude, A., 763
 Clayton, B. E., 558
 Clayton, D. A., 336, 338, 339, 342, 343
 Cleland, W. W., 30, 31, 39, 40, 42, 44, 137
 Clemens, C. E., 207, 208
 Clemetson, K. J., 271, 439, 797
 Cleve, H., 740
 Clewell, D. B., 335, 343
 Click, E. M., 618, 619, 621, 622, 623, 624, 625, 626, 627
 Clifford, R. L., 494
 Clifton, C. M., 108
 Cline, D. C., 506
 Cline, J. C., 519, 525, 526, 527
 Cline, M. J., 171, 547
 Close, R. I., 602
 Clow, C. L., 557
 Coates, C. W., 16
 Coats, J. H., 975
 Coccani, F., 162, 163, 169, 170
 Cockle, S. A., 73
 Codegoni, A. M., 171
 Coen, D., 361, 362, 364, 365
 Coffey, S., 954
 Coffier, H., 475
 Cogan, U., 717, 718
 Coggiola, E. L., 720
 Cohen, A., 604
 Cohen, C., 468, 495, 581, 585, 590, 592, 593

- Cohen, E. R., 892
 Cohen, G. H., 494, 816
 Cohen, G. N., 31, 32, 46, 48, 49, 778, 779, 786, 797
 Cohen, J. A., 338
 Cohen, L. H., 342, 355, 358
 Cohen, M. R., 695
 Cohen, P., 250
 Cohen, P. P., 43
 Cohen, S. N., 287
 Cohn, M., 33, 34, 35, 40, 42, 44, 45, 48, 266, 268, 351, 352, 357, 364, 365, 366, 411, 431, 545, 548, 564
 Cohn, Z. A., 565
 Colacicco, G., 710, 711, 763, 764, 765
 Colby, C., 520, 522, 523, 524, 535
 Colby, C. Jr., 521, 522
 Cole, R. D., 252
 Coleman, J., 734, 740, 741, 743
 Coleman, J. E., 96, 104
 Coleman, R., 736, 755, 756
 Coleman, T. J., 679, 690
 Colli, W., 434
 Collier, B., 934, 935
 Collier, E. S., 92
 Collier, H. O. J., 168
 Collins, A., 112
 Collins, E. B., 450
 Collins, F. D., 135, 139
 Collins, J., 324
 Colombo, J. P., 545, 546, 548
 Colowick, S. P., 31, 41
 Colson, A., 450
 Colson, C., 450, 459, 460
 Coltrain, I. M., 641
 Colvill, A. J., 411
 Colwell, R. E., 563
 Combela, P., 889
 Comline, R. S., 930
 Compans, R. W., 474, 493, 494, 738, 746, 747
 Conchie, J., 684
 Condamine, H., 411
 Condrea, E., 149, 151
 Cone, R., 461, 483, 496
 Conio, G., 880, 881, 886
 Connell, G. E., 693
 Conner, A. H., 982
 Connett, R. J., 930, 931
 Connor, J. D., 568
 Conover, T. E., 597
 Conrad, R. H., 849, 850, 851
 Consigli, R., 318
 Conti, F., 860, 873, 890
 Conway, M. M., 32
 Conway, T. W., 392
 Conway-Jacobs, A., 880, 892
 Cook, E. S., 97
 Cook, G. M. W., 675, 695, 759
 Cook, L. L., 851
 Cook, M. J., 108
 Cook, P. R., 566
 Cook, R. E., 962
 Cook, W. H., 724
 Cooke, R., 597, 598
 Cooks, R. G., 972
 Coolsma, J. W. T., 354, 355
 Coombes, J. D., 880
 Coombs, T. L., 97
 Coon, M. J., 31, 33, 46
 Cooper, C., 35
 Cooper, D., 947
 Cooper, D. J., 974
 Cooper, G. W., 634
 Cooper, J. R., 557, 558
 Cooper, M. D., 536
 Cooper, M. F., 151, 152
 Cooper, R. A., 31
 Cooper, S., 313, 321, 323, 324, 325, 326
 Cooperman, J. M., 57
 Coote, J. L., 348, 359
 Copenhaver, J. H., 764
 Corcoran, P. L., 112
 Corett, R., 914, 915
 Corey, E. J., 165
 Corey, R. B., 873, 874
 Cornatzer, W. E., 108
 Cornblath, M., 546
 Cornell, J. S., 677
 Corneo, G., 338, 349
 Cornette, J. C., 163
 Cornick, G., 475
 Cornstock, J. P., 637
 Cornwell, D. G., 706, 713, 714
 Corradini, P., 878
 Corradino, R. A., 179, 180, 181, 182, 783, 801
 Corsi, G. C., 109, 110, 113
 Cortijo, M., 884, 885, 886
 Corvol, P. L., 217, 218, 219
 Corwin, L. M., 793
 Cory, R. P., 848
 Cosani, A., 873, 880, 884
 Costain, C. C., 878
 Costantini, S., 102, 108
 Costilow, R. N., 70
 Cota-Robles, E., 492
 Cottam, G. L., 31, 33
 Cotter, R. I., 396
 Cottrell, S. F., 346
 Coulter, C. L., 964
 Coupland, R. E., 932
 Couri, D., 197
 Courtney, R. J., 474
 Courtois, J. E., 972
 Couse, N. L., 480, 484, 487
 Cousin, M. A., 384, 398
 Cousins, R. J., 180
 Cova, D., 143
 Cowan, D. M., 207, 209
 Cowan, P. M., 873, 874
 Cowles, J. R., 75
 Cox, B. G., 909
 Cox, R. A., 519, 520, 526
 Cox, R. P., 546, 567
 Cox, R. T., 16
 Crabeel, M., 794
 Craig, L. C., 873, 878, 881, 903, 911, 912, 917
 Craig, M., 244
 Crampton, R. F., 193
 Crane, D., 110
 Crane, F. L., 142, 143, 150, 151
 Crane, R. K., 30, 804
 Crane-Robinson, C., 253
 Crapo, L., 265, 269
 Crasemann, J. M., 425, 481
 Craven, G. R., 386, 388, 391, 392, 394, 398, 399, 401
 Cravy, W. D., 110
 Crawford, L., 475, 476
 Crawhall, J. C., 545, 552, 555
 Creemers, J., 564
 Creth, J. M., 634
 Crepet, M., 112
 Crescenzi, V., 880
 Creskoff, E., 337, 338
 Cresswell, P., 693
 Crichton, R. R., 394
 Crick, F., 462
 Crick, F. H. C., 236, 377, 378, 380, 401, 427, 467, 495
 Criddle, R. S., 353, 354, 359, 364, 365
 Crider, Q., 184
 Criss, W. E., 31
 Crocker, A. C., 552, 555
 Croghan, P. C., 766
 Crombie, G., 651, 656
 Cromwell, C. L., 695
 Cronan, J. E. Jr., 138
 Crosby, L. K., 481, 487, 488
 Cross, C. E., 107
 Cross, M. J., 100
 Crothers, D. M., 243, 244, 245, 246, 254, 255, 257, 892
 Crowe, D., 904
 Crowshaw, K., 162, 163, 164, 169
 Crowther, R. A., 469
 Cruge, F., 889
 Crumpacker, C. S., 506, 507
 Crunkhorn, P., 168
 Cryer, D. R., 364
 Csallany, A. S., 184, 185
 Csonka, E., 102, 103
 Cucatrecasas, P., 213, 261
 Cuetchi, L., 102
 Cucuel, F., 102
 Cullen, A. M., 557

- Cumings, J. N., 135
 Cumming, R. B., 130, 132, 133
 Cumming, R. L. C., 112, 115
 Cummings, D. J., 480, 481, 483, 484, 487, 490
 Cummins, J. E., 368
 Cunningham, E., 154
 Cunningham, L. W., 31, 45, 626, 640, 675, 676, 677
 Curley, A., 102
 Currutte, B., 912, 917
 Curran, P. F., 778, 794, 804
 Currie, B. T., 148
 Curry, A. S., 108
 Curtis, A. S. G., 762
 Curtis, J. E., 565
 Curtius, H.-C., 982, 985
 Cusworth, D. C., 546, 564
 Cuzin, F., 315, 508
 Czaplicki, S. M., 348, 349, 353
- D
- Daae, L. N. W., 137, 144
 Daemen, F. J. M., 765
 Dahlberg, J. E., 363, 383, 391, 393, 433, 492
 Dahlquist, F. W., 985
 Dahms, A. S., 805
 Dalby, A., 105
 Dales, S., 493
 Daley, K., 411, 412
 Dallenbach, F. D., 108, 115
 Damany, H., 879
 Damlé, V. N., 880
 Dancis, J., 545, 546, 550, 551, 561, 567
 Dandliker, W. B., 843, 854
 Danes, B. S., 568
 Daniel, E., 849
 Daniel, E. S., 904
 Daniel, J. W., 102
 Daniel, L. J., 80
 Daniel, V., 414
 Danielli, J. F., 759, 771
 Daniels, E. G., 162, 164, 165, 166
 Daniels, M., 610
 Daniels, M. J., 327, 438
 Danilchenko, A., 691, 693
 Danna, K., 450, 453, 454
 Danyluk, S. S., 873
 Darby, G., 263, 311
 Darbyshire, J. E., 520
 Darlix, J. L., 412, 414
 d'Armiento, M., 171
 Darmstadt, R. A., 304
 Darnall, D. W., 33, 527, 529, 530
 Darnell, J. E., 351, 359, 367, 474, 492, 494, 509
 Darnell, J. E. Jr., 474, 478, 738
- Dassell, S. W., 545, 547
 Datta, A., 46, 492, 859
 D'Auzac, J., 34
 Davern, C. I., 306, 311
 Davey, P. J., 360
 David, A., 492, 494
 David, G. F. X., 108
 Davidson, B., 879
 Davidson, E. A., 554, 676, 682, 683
 Davidson, J. B., 144, 145
 Davidson, N., 96, 99, 241, 252, 260, 288, 343, 349
 Davidson, N. R., 870, 882
 Davidson, O. W., 205, 207, 208
 Davidson, P. F., 630
 Davidson, R. G., 568
 Davie, E. W., 413
 Davies, B. K., 697
 Davies, D. R., 816, 817, 837
 Davies, J., 363, 378, 391, 400
 Davies, J. E., 363, 391
 Davies, J. T., 760
 Davies, K. P., 968
 Davies, M., 781
 Davies, R. E., 606, 607
 Davis, B., 171
 Davis, B. D., 382, 402, 535, 784, 793
 Davis, D. C., 705
 Davis, G. W., 880
 Davis, N. F., 640
 Davis, K. A., 736
 Davis, M. E., 207
 Davis, N. C., 106
 Davis, N. R., 651, 653, 654, 657, 658, 674
 Davis, P. S., 692, 693
 Davis, R., 315, 477
 Davis, R. W., 286, 287, 288, 290, 338, 339, 343, 411, 418, 419
 Davison, A. N., 563
 Davison, B. E., 962
 Davison, J., 414, 415, 434
 Davison, P. F., 259
 Davson, H., 771
 Dawes, J., 80
 Dawid, I. B., 334, 335, 337, 338, 341, 344, 348, 349, 350, 351, 352, 355, 357
 Dawkins, R. C., 380
 Dawson, C. R., 538
 Dawson, D. M., 31, 32, 44, 527, 529
 Dawson, E. B., 110
 Dawson, G., 546, 552, 555
 Dawson, R. M. C., 129, 140, 145, 146, 147, 153, 762, 763, 765
 Day, C. E., 716, 717
 Day, J. I. E., 132
- Day, L. E., 520
 Day, P. L., 187
 Day, R. W., 545, 549
 Daya, L., 391, 396
 Dayhoff, M. O., 683
 Deal, W., 940, 941, 947
 Dean, M. F., 875
 DeAngelo, A. B., 206, 222
 Dearborn, D. G., 715, 880
 Deber, C. M., 873, 880
 DeBernardo, S. L., 684
 Deboe, J., 695
 Debordes, E., 106
 De Bruin, A., 112, 114
 Debuch, H., 132, 133, 134
 Debye, P., 906, 907
 Decker, C. F., 108
 DeClercq, E., 521, 522, 523, 524, 525, 527, 533
 deCrombrughe, B., 271, 410, 431
 DeDella, C., 216, 217, 218
 Deeb, S. S., 735
 Deftos, L. J., 163
 deGagneten, C. B., 559
 Degani, C., 978
 de Gier, J., 769, 770
 De George, C., 348
 deGoelj, J. J. M., 102
 deGrouchy, J., 565
 de Haan, P. G., 459
 De Haas, G. H., 147, 148, 149, 150, 152
 DeHertogh, R., 207, 213
 Dehlinger, P. J., 740
 Dehm, P., 631, 637
 De Jimenez, E. S., 137
 DeJongh, D. C., 971
 Dekker, C. A., 261
 Dekker, E. E., 70
 De Kloet, R., 348
 DeKruyff, B., 140, 144, 145
 DeLaFuente, G., 41, 43
 Delain, E., 342, 343
 DeLange, R. J., 31, 352, 674, 682
 Delbecco, R., 474, 475
 Delbrück, M., 235
 del Castillo, J., 928, 929, 934, 938, 945, 948
 Delius, H., 263, 264, 308, 316, 385
 Deller, D. J., 692
 DeLong, S. S., 484, 487, 490
 De Lúzé, C., 904, 910, 916
 Del Pra, A., 892
 DeLuca, H. F., 172, 180, 181, 182, 190
 De Luca, M., 848, 850, 921
 De Lucia, P., 307
 De Luque, O., 656
 Delvin, E., 557
 De Maeyer, E., 517, 520, 521, 526

- de Maeyer, L., 905, 906
 De Maeyer-Guignard, J., 517, 520, 521, 526
 DeMars, R., 568
 Demel, R. A., 767, 769
 Demetriou, J. A., 207
 DeMoss, R. D., 791, 793
 Dempsey, M. E., 724
 Dempsey, W. B., 31, 33, 38
 de Munoz, D. M., 857
 Denborough, M. A., 692, 694
 Denhardt, D. T., 310, 314, 315, 477
 Dennert, G., 806
 Dennis, E. A., 144
 Dennis, M., 928
 Dennis, M. J., 948
 Dennis, V. W., 766
 Dent, C. E., 546, 564
 Denys, P. Jr., 534
 de Potter, W. P., 932, 936
 Deppe, G., 806
 Deranleau, D. A., 852
 Derechin, M., 31, 45
 DeRidder, J. J., 971
 Derjaguin, B., 767
 Der Kaloustian, V. M., 568
 De Robertis, E., 930, 945, 947
 De Robertis, E. D. P., 929
 De Rosier, D. J., 593, 609
 Der Terrossian, E., 31, 32, 45
 Dervichian, D. G., 755
 Desai, I. D., 184, 187
 De Santis, P., 870, 871, 874, 878
 de Saussure, V. A., 854
 de Schaeprdyver, A. F., 932, 936
 Deshimaru, M., 192
 Deshmukh, A. D., 654, 656
 Deshmukh, G. S., 97
 Deshmukh, K., 625, 654, 655, 656, 662
 Deshpande, N., 207
 Deshpande, V., 989
 DeSiervo, A. J., 145
 De Simone, G. F., 102
 DeSimone, R. E., 83, 96, 100
 Desnick, R. J., 565, 987
 DeSombre, E. R., 203-30; 204, 207, 208, 209, 210, 211, 212, 213, 214, 220, 221, 222, 223
 DeSomer, P., 533, 534
 Deter, A. M., 858
 De Thé, C., 367
 Deuel, T. F., 786
 Deusser, E., 392
 Deutsch, J., 361, 362, 364, 365
 Deutsche, C. W., 879
 Deutscher, M. P., 310, 695
 DeVaux, P. D., 807
 Deveney, M. J., 873
 de Verdier, C.-H., 822
 Devi, S. R., 714
 Devigne, J. P., 114
 Devlin, J., 335
 DeVoe, H., 254
 Devor, K. A., 140
 De Vries, A., 151
 DeVries, A. L., 676, 681, 689
 De Vries, H., 334, 348, 350, 353, 354, 356, 358, 359, 362, 366
 Dewey, K. F., 383, 384
 Deziel, C., 108
 Dialameh, G. H., 192
 Diamond, J. M., 758
 Diamond, R., 545, 873
 Diamond, S., 562
 Diana, L., 110, 112, 114
 Dianoux, A. C., 858
 Dianzani, F., 532
 Diaz de Leon, L., 633
 Dick, W. E., 981
 Dick, Y. P., 618
 Dickerman, H., 79
 Dickerson, R. E., 815-42; 368, 736, 816, 827, 829
 Dickinson, E. O., 102
 Dickinson, F. M., 850
 Dickson, R. C., 467-502; 481, 483, 486, 490, 491, 496
 Dieben, M., 398, 399
 Dieckmann, M., 508
 Diederich, D., 822
 Diederich, D. A., 98
 Diedrich, D. F., 983, 984
 Diefenbach, H., 44, 45
 Diegelmann, R., 660
 Diehl, A. M., 565
 Dietz, G. W., 795, 805
 DiFerrante, N., 565
 Dils, R. R., 139
 Dimarco, G., 46
 DiMarzio, E. A., 882, 884, 887
 Di Matteo, G. F., 348
 Di Mauro, E., 280, 283
 diMayorca, G., 504, 505
 Diner, O., 932
 Dingjan-Versteegh, A., 473
 Dingle, J. T., 185, 767
 Dinning, J. S., 187, 188
 Dintzis, H. M., 97
 Dinu, I., 105, 106, 107, 108
 Di Nunno, C., 109, 110
 Diorio, A. F., 890
 Diplock, A. T., 189
 Dirksen, M. L., 261
 DiRosa, M., 168
 Di Sabato, G., 904
 Dische, Z., 691, 693
 di Stefano, H. S., 511
 Diven, W. F., 33
 Dixon, H., 350
 Djurovic, M., 116
 Dmitriev, B. A., 970
 Dobbins, J., 721, 723
 Dobbins, M. C., 223
 Dobbs, R. H., 545, 548, 558
 Doberer, H. G., 390
 Dobrogosz, W. J., 431
 Dodd, G. H., 852
 Doddrell, D., 969, 983
 Dodge, F. A., 928
 Doerfler, W., 476
 Doermann, A. H., 484
 Dohan, C., 504
 Doherty, M. D., 32
 Doi, R. H., 435, 436, 437
 Doll, R., 692
 Domanskii, A. N., 843
 Donachie, W. D., 325
 Dondon, J., 378, 382, 383, 400, 402, 403
 Donkin, P., 96
 Donley, J. R., 605
 Donnelly, R. B., 207
 Donner, D., 385, 397
 Doolittle, W. F., 434
 Doonan, S., 148
 Dorfman, A., 561
 Dorman, D. E., 968
 Dorne, B., 99
 Dorsey, J. K., 40
 Doty, P., 234, 243, 256, 258, 259, 278, 873, 875, 876, 879, 880, 884, 886, 888, 889, 892
 Dougherty, R. M., 511, 767
 Douglas, S. D., 744, 747
 Douglas, W. W., 930, 931
 Douglass, S., 364, 365
 Dourlent, M., 255
 Dourmashkin, R., 767
 Dourmashkin, R. R., 767
 Douthart, R. J., 523, 524
 Dove, W. F., 241, 315, 319, 323, 421
 Dover, S. D., 874
 Dowler, M. J., 30, 42
 Dowling, J. M., 878
 Downer, N. W., 903-24
 Downey, K. M., 281, 287, 288
 Downie, A. R., 880, 890
 Downing, D. T., 165
 Downs, F., 682
 Doyle, R. J., 692
 Drabikowski, W., 590
 Draffin, G. H., 557
 Dragann, N., 115
 Drahovsky, D., 293
 Drake, M. P., 630
 Draoli, R., 107
 Drapeau, G. R., 786, 805
 Draper, H. H., 184, 185
 Dray, S., 722
 Dreher, K. D., 186

- Dreifuss, J. J., 170
 Dreizen, P., 578, 579, 580, 582, 598, 599
 Drenth, J., 816
 Drescher, D., 181, 182
 Dressel, E. I. B., 112
 Dressler, D., 312, 314, 315, 318, 319
 Dreyer, W. J., 364, 739
 Dreyfus, J. C., 545, 551
 Dreyfus, M., 870, 872, 878
 Dreyfus, P. M., 57, 58
 Dreyfuss, J., 779, 781
 Drinker, K. P., 92
 Drum, D. E., 104
 Drummond, D., 191
 Drummond, G. I., 732
 Druyan, R., 104, 106
 Dryden, G. L., 108
 Drzeniek, R., 474
 Dubbelman, T. M. A. R., 135
 Dubbs, D. R., 504
 Dubert, J. M., 280
 Dubin, D. T., 348, 349, 350, 351, 353
 Dubin, S. B., 481
 Dubnoff, J. S., 278, 289, 414, 418, 419
 Du Bay, H. G., 342
 Duchamp, D., 975
 Duc-Nguyen, H., 483, 494
 Duello, T. J., 192
 Duesberg, P. H., 474, 510, 511, 513, 520, 524
 Dufour, C., 873
 Duggan, P. F., 604
 Duke, J. A., 596
 Dulbecco, R., 367, 505, 507, 508, 509
 Dumas, L. B., 263, 311, 314
 Dumont, J. E., 171
 Dunant, Y., 935
 Duncan, I., 689
 Dunham, E. W., 162
 Dunker, A. K., 478, 479, 740
 Dunlop, L., 102
 Dunlop, R. H., 102
 Dunn, J. J., 278, 287, 290, 412, 413, 417, 420, 427, 428, 429
 DuPre, D. B., 892
 Durbin, R. P., 794
 Durette, P. L., 965, 967
 Durham, A. C. H., 469, 470, 471, 495
 Dürwald, H., 310, 314
 Dussoix, D., 449
 Dustin, P., 545, 554
 Dwek, R. A., 852, 969, 970
 Dyckman, J., 858
 Dyer, J. K., 70
 Dzionara, M., 385, 386, 391, 398
- E
- Eagar, R. G. Jr., 55, 60, 62
 Eaker, D., 945
 Eaker, D. L., 945
 Earhart, C. F., 327
 Earl, J. L., 114
 Easterbrook, K. B., 493
 Eavenson, E., 784
 Ebashi, F., 586, 587, 589
 Ebashi, S., 586, 587, 589, 591, 593, 594, 604
 Ebel, J. P., 387
 Eber, J., 102
 Eberle, H., 322
 Eccleston, E., 538
 Echols, H., 326, 414, 415, 421, 422, 423, 424, 434, 438
 Eckhart, W., 503-16; 504, 505
 Eckstein, F., 522, 523, 964
 Eddleman, H. L., 483
 Eddy, A. A., 804, 805
 Edelhoch, H., 843
 Edelman, G. M., 817, 838, 843, 844, 847, 850, 851, 853, 854
 Edelman, I. S., 223
 Edelman, M., 337, 348
 Edelstein, C., 708, 709, 710, 711, 712, 720
 Edelstein, S. J., 736
 Edgar, R. S., 479, 480, 481, 483, 484, 486, 488, 489, 490, 495
 Edgell, M. H., 476, 477
 Edidin, M., 696, 744, 807
 Edlbacher, S., 105
 Edlund, B., 31, 42
 Edmundson, A. B., 817, 838
 Edner, O. J., 708, 715
 Edsall, J. T., 97, 849, 870, 873, 881
 Edwards, J. O., 96
 Edwards, W. A., 559
 Edwards, W. G. Jr., 162
 Efendic, S., 170, 171
 Efron, M. L., 545, 546, 562
 Egami, F., 684
 Egan, J. B., 794, 799
 Egan, T. J., 545, 552, 556, 561
 Egelrud, T., 723
 Ehrenpreis, S., 941
 Ehrenreich, B. A., 565
 Ehresmann, C., 387, 433
 Ehrlich, H. P., 662
 Eibl, H., 138
 Eichberg, J., 747
 Eichhorn, G. L., 107, 241, 242
- Eldic, L., 434
 Eigen, M., 35, 905, 906, 907, 908, 910, 916
 Elgner, E. A., 618, 619
 Einset, J. W., 982
 Einstein, A., 7, 22
 Einstein, E. R., 733, 737
 Eisen, A. Z., 660, 662
 Eisen, H. N., 854
 Eisenberg, D., 815
 Eisenberg, E., 584, 600, 601, 602, 610
 Eisenberg, H., 255
 Eisenberg, S., 151, 153
 Eisenfeld, A. J., 207
 Eisenman, G., 754, 757, 758, 766, 767
 Eisenstark, A., 317, 487, 488
 Eisenthal, R., 977
 Eisinger, F. A., 467-502; 481, 483, 484, 486, 487, 489, 496
 Eisinger, J., 855, 857
 Ekka, E., 207, 213
 Ekman, L., 102
 Eladari, M. E., 348
 Eldefrawi, A. T., 942, 947
 Eldefrawi, M. E., 942, 947
 Elford, H. L., 75
 Ellefson, R. D., 552
 Elleman, T. C., 679
 Ellerton, N. F., 244, 245, 855
 Ellingboe, J., 135
 Elliott, A., 590, 870, 873, 880
 Elliott, H. L., 168, 169
 Elliott, W. B., 148, 149, 150, 154
 Ellis, D., 106
 Ellis, D. J., 213
 Ellis, F., 207
 Ellis, L. C., 165
 Ellis, L. F., 519, 520, 523, 532
 Ellis, W. G., 561
 Ellison, E. D., 525, 537
 Ellison, S. A., 693
 Ellwood, D. C., 976
 Elmquist, D., 934
 Elovson, J., 136, 137, 139, 140
 Elsden, D. F., 653, 657, 658, 674
 El-Sheikh, M., 141
 Elson, E. L., 255
 Elstner, E. F., 972
 Elworthy, P. H., 768
 Elzinga, M., 582
 Embree, N. D., 187
 Emery, F. A., 546
 Emery, T. F., 904, 914, 917
 Emmelot, P., 732
 Emmer, M., 431

- Emmersen, J., 745
 Emmerson, B. T., 108, 114
 Emrich, J., 486
 Enberg, J., 912, 919
 Endo, A., 735
 Endo, M., 587, 594, 604, 606, 934
 Endo, Y., 946
 Eng, L. F., 733, 735, 737
 Engel, J., 870, 880, 882, 884, 885, 887, 888, 889, 891, 892
 Engelhardt, D. L., 381, 535
 Engelman, D. M., 732, 733, 744, 755, 769
 Engelman, K., 547
 Englander, J. J., 904, 912, 914, 917, 920
 Englander, S. W., 903-24; 904, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 920, 921
 England, S., 983
 Englesberg, E., 271, 272, 411, 429, 438, 439, 794, 797
 Enholm, C., 722
 Enmer, M., 270
 Epand, R. F., 879
 Ephrati-Elizur, E., 322
 Epler, J. L., 351
 Epp, O., 816, 835
 Eppenberger, H. M., 31, 32, 44, 527, 529
 Eppenberger, M. E., 527, 529
 Epps, H. M. R., 431
 Epstein, C. J., 561
 Epstein, E. H. Jr., 618, 619, 622, 623, 627, 628, 630
 Epstein, H. F., 854
 Epstein, R. H., 262, 425, 426, 427, 480, 481, 483, 487, 489
 Epstein, S., 188
 Epstein, S. S., 99
 Epstein, W., 410, 781
 Erbstoesser, J. W., 411
 Erdmann, V. A., 388, 390
 Erdos, T., 209, 210, 212, 213
 Erenrich, E. H., 873, 874
 Ericsson, J. L. E., 690
 Eriksen, L., 112
 Erikson, R. L., 473, 510
 Erlanger, M., 108
 Erlenmeyer, H., 35
 Eron, L., 410, 428, 432, 433
 Ertel, R., 75, 380
 Erwin, V. G., 132
 Esenalieva, N., 115
 Estahani, M., 806
 Esipova, N. G., 892
 Espejo, R. T., 491, 492
 Essenberg, M. K., 62, 63, 64
 Essing, H. G., 108
 Essner, E., 142
 Estes, J. E., 584
 Estes, M. K., 475
 Ettlinger, M., 973
 Etzler, M. E., 686
 Etzold, G., 978
 Evans, A., 207, 208
 Evans, G. W., 108
 Evans, H. H., 334, 335
 Evans, H. J., 34, 75
 Evans, H. M., 182
 Evans, J. L., 103
 Evans, L. H., 208
 Evans, R., 538
 Evans, T. E., 334, 335, 337, 346, 368
 Evans, W. H., 732, 740, 745
 Evans, W. R., 350, 352
 Eveleigh, D. E., 985
 Eveleigh, J. W., 32
 Everse, J., 675
 Eybl, V., 108
 Eyerman, E., 538
 Eylar, E. H., 674, 676, 677, 683, 688, 690, 732, 733, 735, 737, 743, 744
 Eyre, D. R., 627, 655
 Eyring, E. J., 258
 Eyring, E. M., 907, 916
 Eyring, H., 879
 Ezekiel, A. D., 979
 Ezekiel, D. H., 411
 Ezzer, J. B., 545, 548, 564
- F
- Fabian, F., 598
 Fabiano, R., 33
 Fabre, M. T., 108
 Fabricant, J. D., 316, 477
 Facon, M., 679
 Fahey, J. L., 693, 734, 745
 Fahnestock, S., 390
 Fain, J. N., 171
 Fairbanks, G., 734, 740, 741, 742, 743, 744, 747
 Fairhall, L. T., 113
 Fairweather, R., 642, 657, 658, 659
 Falcoff, E. T., 520
 Falcoff, R., 520
 Falcoz-Kelly, F., 31, 795
 Falk, J. D., 112
 Falk, R., 102
 Falk, R. J., 215, 216
 Fallon, H. J., 137
 Faloon, W. W., 545
 Falxa, M. L., 891
 Fambrough, D. M., 674
 Fanconi, B., 873
 Fang, S., 223
 Fanger, M. W., 675, 677
 Fanning, T. G., 391, 392, 395, 401
 Fantes, K. H., 518
 Faris, B., 651, 653, 654, 655, 656, 659
 Farkas, J., 972
 Farkas, W. R., 111
 Farley, T. M., 187
 Farnaud, B., 679
 Farrow, L. J., 745
 Farvar, M. A., 102
 Fasiska, E. J., 963
 Fasman, G. D., 250, 252, 870, 873, 874, 878, 879, 880, 882, 885, 887, 889, 891
 Fassina, G., 169
 Fassold, H., 582, 583
 Fati, S., 112, 115
 Fatt, P., 928
 Fattah, S. M., 545
 Fattoum, A., 40, 46, 47, 48
 Faures, M., 338, 339, 340, 364
 Faust, A. S., 345
 Favino, A., 112
 Favre, A., 396
 Fawcett, J. S., 545, 552
 Fazackerly, J., 103
 Feather, M. S., 986
 Febro, S., 538
 Fedeli, E., 975
 Feeney, R. E., 676, 681, 689
 Feherty, P., 207, 210, 213
 Fehnel, J. W., 92
 Feigelson, P., 355
 Feigen, G. A., 854
 Feinstein, M. B., 857, 859
 Feinstein, R. N., 565
 Feist, D., 547
 Feltelson, J., 851
 Feldman, F., 112, 114
 Felicetti, L., 348
 Felix, A., 450
 Felix, A. M., 880
 Fellers, F. X., 562
 Fellner, P., 387, 388, 400, 433
 Felsenfeld, G., 240, 242, 245, 246, 247, 249, 250, 251, 252, 253, 255, 256, 260, 261
 Felsenfeld, H., 857, 859
 Felts, J. M., 722
 Fencel, M. M., 205
 Fenn, M. D., 880
 Fenn, R. H., 962
 Fenner, F., 473, 495
 Fenster, L. J., 764
 Ferber, E., 153, 857
 Feretos, R., 645, 783
 Ferm, D. W., 111
 Ferm, V. H., 107, 108, 111
 Fernandes, J., 545, 548
 Fernandez-Moran, H., 754
 Ferreira, S. H., 162, 168
 Ferretti, J. A., 881

- Ferrier, R. J., 954, 975
 Ferris, F. L., 262
 Fessler, J. H., 630, 876
 Fettplace, R., 756, 757
 Fiehn, W., 154, 605
 Field, A. K., 519, 520, 521,
 522, 523, 532, 537
 Field, J. B., 171
 Field, M., 169
 Fielding, C. J., 723, 724
 Fielding, P. E., 326, 724,
 808
 Fields, K. L., 428
 Fierro, F. J., 633
 Fieser, L. F., 192
 Fietzek, P. P., 618, 619, 622,
 623, 627
 Fijishiro, R., 884, 885, 886
 Fillenz, M., 936
 Fimreite, N., 102
 Finch, J. T., 468, 469, 470,
 472, 478, 495
 Finch, P. R., 732, 735, 737,
 743, 747
 Fine, R. E., 744
 Finean, J. B., 754, 755, 756,
 758
 Fink, T. R., 892
 Finkel, S. I., 74
 Finkelstein, A., 766
 Finkelstein, J. D., 557, 559
 Finkelstein, M. S., 521,
 530
 Finlayson, A. J., 675, 677
 Finlayson, B., 594
 Finlayson, J. S., 674
 Finnegan, R. A., 973
 Finter, N. B., 536
 Firemark, H., 931
 Firkin, B. G., 547, 551
 Firshein, W., 75
 Fischer, E. H., 31, 48
 Fischer, H., 153, 857
 Fischer, K., 109
 Fish, M. B., 186, 187
 Fish, W. W., 740
 Fishbein, L., 163
 Fishel, C. W., 692
 Fisher, H., 485
 Fisher, H. F., 747
 Fisher, W. R., 714
 Fishkin, B. G., 695
 Fishman, P. H., 983, 984
 Fishman, S. N., 884
 Fiskesjo, G., 99
 Fiszer, S., 945
 Fitch, C. D., 183, 187
 Fitton-Jackson, S., 618, 640
 Fixman, M., 876, 892
 Flaks, J. G., 59, 390, 394,
 546, 557, 558
 Flanagan, M. T., 844, 847
 Flashner, M., 46
 Flatgaard, J. E., 481, 488
 Flavell, R. A., 336, 338, 339,
 341, 344, 345, 346
 Fleisch, H., 110
 Fleischer, B., 142, 690
 Fleischer, S., 142, 690,
 732, 754
 Fleming, R. W., 525
 Flesher, J. W., 207
 Flesher, B., 162
 Fletcher, A. P., 684, 686
 Fletcher, B., 189
 Fletcher, M. J., 107
 Flock, E. V., 193
 Florentiev, V. L., 280
 Florey, E., 929
 Flory, P. J., 257, 870, 873,
 874, 875, 876, 877, 881,
 882, 883, 885, 892
 Fluharty, A. L., 104, 107,
 565
 Flynn, P. D., 170
 Focant, B., 31
 Fogel, S., 386
 Folca, P. J., 207
 Folch, J., 737
 Folch-Pl, J., 735, 737
 Folk, J. E., 105, 106
 Folkers, K., 184, 187
 Follmann, H., 72, 74
 Folman, Y., 207
 Fondy, T. P., 977
 Fontaine-Brouty-Boye, D.,
 538
 Fonham, E. H., 168
 Forbes, M., 538
 Ford, E., 453
 Ford, J. D., 626, 675
 Ford, L. E., 606
 Formanek, H., 816, 835
 Forney, R. B., 108
 Forrest, G., 736
 Forrest, G. L., 480, 481,
 483, 484, 487
 Forrester, I. T., 348, 350
 Forte, G. M., 706, 712,
 714, 725
 Forte, T., 706, 714, 718,
 719, 721, 725
 Forti, G., 736
 Foss, P., 164, 165
 Foster, A. B., 969, 970,
 976, 977
 Foster, J. A., 651
 Foster, M. A., 65, 80
 Fournier, F., 533
 Fowler, L. J., 653, 654,
 657
 Fox, C. F., 326, 798, 806,
 808
 Fox, I. H., 567
 Fox, M. R. S., 108
 Fox, R., 695
 Fox, R. M., 547, 551
 Fraenkel, D. G., 795
 Frailey, J., 163
 Frame, B., 633
 Francois, C. J., 629, 904,
 921
 Frangione, B., 676, 677
 Frank, B. H., 904, 910,
 912, 913, 914
 Frankel, F. R., 480, 481,
 483, 485
 Frankel-Conrat, H., 97, 469,
 471, 473, 495, 496, 904
 Frank-Kamenetskii, M. D.,
 244, 254, 257, 258, 259,
 260
 Franklin, R. M., 383, 402,
 475, 476, 492, 738, 746,
 747
 Franks, D. J., 168, 171
 Fransome, R., 151, 152,
 154
 Franzblau, C., 618, 640,
 641, 642, 651, 653, 654,
 655, 656, 657, 658, 659,
 674
 Franzen, J. S., 916
 Fraser, D. R., 180, 181
 Fraser, R. D. B., 892
 Fraser-Reid, B., 974, 981
 Fratantoni, J. C., 552, 553,
 554, 561
 Frederick, E. W., 290
 Fredholm, B. B., 163
 Fredrickson, D. S., 546,
 704, 706, 714, 715, 716,
 717, 719, 720, 721, 722,
 723
 Freed, S., 745
 Freedman, R. B., 849, 857,
 859
 Freeman, A. R., 933
 Freeman, I. L., 640
 Freeman, J. M., 546
 Freeman, K. B., 348, 353
 Freeman, N. K., 714
 Freer, J. H., 732, 763, 764,
 765
 Freer, S. T., 816
 Freese, E., 337, 805
 Freese, M., 75
 Freifelder, D., 259, 319,
 481
 Freinkel, N., 140
 French, F. S., 223
 Frenkel, L. K., 151
 Freund, L., 873
 Frey, L., 256, 262, 263,
 264, 308
 Frey, P. A., 62, 63, 64,
 65
 Frezal, J., 543
 Friberg, L., 108
 Friberg, U. A., 657
 Fridborg, K., 97, 816
 Fried, M., 504, 505, 563
 Friedberg, S. J., 130, 131
 Friedemann, H., 132, 133
 Friedman, E., 456
 Friedman, H. C., 70, 72
 Friedman, P. A., 245
 Friedman, R. D., 691,
 693
 Friedman, R. M., 528, 532,
 533, 534

AUTHOR INDEX

1011

Friedman, S., 79
 Friedman, T., 473
 Friedman-Kien, A. E., 521, 523
 Friedmann, T., 565, 568
 Friend, D. A., 348, 350, 351
 Fries, D. C., 963
 Fries, J., 210, 213
 Friis, R. R., 511, 512, 513
 Frimpter, G. W., 557, 559
 Fritsch, A., 313
 Froede, H. C., 31, 46
 Froehlich, J. P., 605
 Frohwein, Y. Z., 959
 Fromageot, P., 288
 Fromm, H. J., 33, 40, 41, 43, 595
 Fronk, E., 412
 Frost, H. M., 633
 Frumkin, S., 139, 795
 Frush, H. L., 990
 Fruton, J. S., 106
 Fry, B. E., 108
 Frye, L. D., 744, 807
 Fuchs, E., 280, 291, 325
 Fuchs, F., 560
 Fuchsberger, N., 538
 Fuchswans, W., 652
 Fujimoto, D., 636, 684
 Fujimoto, S., 162
 Fujimoto, W. Y., 549, 557, 568
 Fujimura, R. K., 390
 Fujino, M., 102
 Fujioka, S., 75
 Fujisawa, H., 480, 483, 485
 Fujita, D. J., 431
 Fujita, H., 855, 873, 884, 885, 886
 Fujita, T., 102
 Fukamachi, S., 353
 Fukasawa, T., 449, 454, 454
 Fukazawa, T., 593
 Fuke, M., 257
 Fukuda, M., 684
 Fukuda, R., 280, 281, 287
 Fukuhara, H., 342, 347, 351, 352, 354, 357
 Fukui, S., 56, 65, 80
 Fulkerson, W., 94
 Fuller, W., 245, 404, 524, 525
 Fulmer, W., 978
 Fulwood, M., 171
 Fung, C. K., 152
 Funk, L. K., 142, 143, 150
 Furberg, S., 962
 Furlong, C. E., 788, 792
 Furman, R. H., 706, 718, 719, 721
 Furlinger, I. G. S., 518
 Furnica, G., 109
 Furniss, H., 132, 133, 134
 Furthmayr, H., 627, 652, 662, 734, 740, 741

Furukawa, K., 101
 G
 Gabbay, E. J., 247, 248
 Gabbe, E. E., 102
 Gabbiani, G., 108
 Gaber, B. P., 104
 Gabillot, M., 342, 343, 345
 Gadaleta, M. N., 348, 353, 354
 Gaddum, J. H., 937
 Gaertner, K., 978
 Gaetjens, E., 599
 Gaffney, B., 247, 248
 Gage, J. C., 102, 103
 Gage, L. P., 430
 Gage, P. W., 937
 Gagnon, J., 732, 735, 737, 743, 747
 Gagnoni, S., 532
 Gahmberg, C. G., 740, 745
 Galde-Huguenin, A. C., 735, 740
 Gajdos, A., 112, 114
 Gajdos-Török, M., 112, 114
 Gal, A. E., 555
 Galarzy, R. E., 873, 911, 917
 Gale, E. F., 431
 Galibert, F., 348
 Galivan, J., 79
 Gallai-Hatchard, J., 150
 Gallant, J., 434
 Gallerani, R., 415
 Galley, W., 846
 Galliard, T., 153
 Gallop, P. M., 617-72;
 618, 626, 627, 640, 642,
 653, 654, 655, 656, 657,
 658, 659, 660, 664, 674,
 734, 740, 742, 882
 Gally, J. A., 851, 854
 Galper, J. B., 351, 359
 Galsworthy, P. R., 779, 782, 802
 Galun, E., 348
 Galzigna, L., 109, 110, 113
 Gamble, J. G., 353, 354
 Gamm, S. H., 108
 Gammack, D. B., 31
 Ganesan, A. K., 779, 795, 796, 797
 Ganesan, A. T., 303, 305
 Ganesan, D., 723
 Ganguly, A. K., 973
 Ganguly, J., 153, 154
 Ganote, C. E., 109
 Ganser, V., 884, 888, 891
 Gantt, C. L., 163
 Gantt, R. R., 910, 912
 Ganz, C., 485

Garan, H., 741, 743, 744, 747
 Garattini, S., 171
 Garby, L., 822
 Garces, E., 30, 31, 40, 42
 Garcia, L. A., 708, 710, 718
 Garcia Blanco, F., 884, 885, 886
 Garcia Trejo, A., 976
 Garczynski, H., 115
 Gardiner, J., 328, 327
 Gardner, G. R., 108
 Gardner-Medwin, D., 545, 552, 556
 Garfinkel, D., 873
 Garner, C. W., 380
 Garner, F. M., 115
 Garoff, H., 722
 Garren, L. D., 172
 Garrett, R. A., 251, 252, 387, 391, 396, 397
 Garrick, M. D., 546
 Garrigou-Lagrange, C., 889
 Gartler, S. M., 565
 Gartner, L. M., 545, 548, 564
 Garver, J. C., 982
 Garvin, R. T., 391, 401, 855
 Gaskin, F., 884, 886
 Gass, J. D., 878
 Gatehouse, B. M., 962
 Gatenby, A. D., 745
 Gatt, S., 152, 153
 Gattenby, P. B. B., 692
 Gauden, J., 603
 Gautron, J., 935, 943
 Gavendo, S., 546
 Gavin, R. H., 391, 392, 395, 401
 Gavrilovich, I. M., 855
 Gawadi, N., 745
 Gazdar, A., 538
 Gazith, J., 578, 579
 Gazzolo, L., 367
 Geelen, J. L. M. C., 472
 Geffen, L. B., 926, 929, 932
 Geffer, M. L., 304, 307
 Geider, K., 302, 310, 311, 314
 Geldusche, E. P., 243, 276, 277, 278, 410, 419, 426, 427, 428, 429, 430, 431, 481, 487, 882
 Geier, M. R., 566
 Gelb, L. D., 508, 509, 512
 Celehrter, T. D., 531
 Gelfand, D. H., 476, 477
 Gellert, M., 245, 246
 Genghof, D. S., 877, 986
 Gennis, R. B., 237
 Gent, P. A., 969
 Gentzler, R., 913
 Georgatos, J. G., 533

- George, J. M., 872
 Georgiev, G. P., 855
 Georgopoulos, C. P., 327, 484, 496
 Georgsson, G., 102
 Geraci, G., 31, 46
 Gerber, B. R., 583
 Gerber, G., 822
 Gerbie, A. B., 560, 561
 Gergely, J., 579, 580, 583, 586, 587, 597, 598
 Gerhardt, P., 786
 Gerisch, G., 153
 German, J., 547
 Gerone, P. J., 537
 Gersh, N. F., 244
 Gershman, L. C., 578, 579, 592, 599
 Gershon, E., 169
 Gerstl, B., 733, 735, 737
 Gerth, N., 654
 Gervasini, N., 108, 110, 113
 Gesteland, R. F., 474, 475
 Getz, G. S., 142, 144, 347, 351, 352, 357, 364, 365, 366
 Gewirtz, P., 932
 Ghadially, R. C., 148, 150
 Ghadimi, H., 546, 547
 Ghambeer, R. K., 72, 75, 84
 Ghangas, G. S., 977
 Gherardini, P., 859
 Ghetli, B., 102
 Ghizelea, G., 108
 Ghosh, S., 423, 424, 438, 798
 Ghysen, A., 403
 Giacometti, G., 873, 884, 885, 886
 Giannopoulos, G., 211, 212, 213
 Gibbons, I. R., 608, 744
 Gibbons, R. A., 694
 Gibbons, W. A., 873, 878, 881
 Gibbs, J. H., 882, 884, 886, 887, 889
 Gibson, J. P., 525
 Gibson, K. D., 112, 878
 Gibson, Q. H., 735, 823, 826
 Gibson, S. L. M., 114
 Gibson, W., 171
 Gielow, L., 272
 Gierer, A., 275, 321
 Giessner-Prettre, C., 873
 Giglio, E., 870, 871
 Gilbert, C., 607
 Gilbert, W., 264, 265, 266, 269, 312, 378, 379, 380, 400, 402, 432, 941
 Gilden, R. V., 511
 Gilliam, J. M., 189
 Gilman, A. G., 171, 172
 Gilmour, N., 163
 Gilmour, L. P., 942
 Gilmour, M. V., 736
 Gilvarg, C., 778
 Ginelli, E., 338, 349
 Gingell, D., 762
 Gingold, E. B., 364, 365
 Ginsberg, B., 308, 311
 Ginsberg, H. S., 473, 474, 475, 476
 Giordano, R., 504, 505
 Giorgio, A. J., 57
 Girard, A., 764
 Girard, M., 474, 475, 507
 Girling, R. L., 962
 Giron, D. J., 537
 Giroud, J. P., 168
 Gitler, C., 857, 858
 Gits, J. J., 794
 Giulietti, M., 559
 Gjone, E., 545, 720, 721
 Gladner, J. A., 105, 106
 Glaeser, R. M., 706, 714, 725
 Glascock, R. F., 206, 207
 Glasel, J. A., 961
 Glaser, D. A., 317, 318, 321, 322, 323, 324
 Glaser, M., 748
 Glassman, T. A., 35
 Glauert, A. M., 767
 Glaumann, H., 690
 Glazer, A. N., 674, 682, 851
 Gleason, F. K., 75
 Glenn, B. L., 547
 Glenn, J. L., 142
 Glenner, G. G., 110
 Glick, M. C., 732
 Glick, M. D., 962
 Glickson, J. D., 904
 Glimcher, M. J., 627, 629, 637, 655, 657
 Glover, G. A., 692
 Glomset, J. A., 706, 712, 721, 723
 Gloor, U., 185
 Glooschenko, W. A., 102
 Glorieux, F., 783
 Glossmann, H., 740, 745, 746
 Glover, J., 152, 154
 Glover, S. W., 450, 459, 460
 Go, A., 873
 Go, M., 877, 878, 882, 892
 Go, N., 870, 874, 877, 878, 882, 892
 Go, Y., 873
 Godfrey, J. E., 578, 582
 Godson, G. N., 477
 Godt, S. M., 854
 Goebel, C. V., 877
 Goebel, W., 308
 Goedde, H. W., 545, 550
 Goel, N. S., 892
 Goff, C. G., 277, 416, 418, 419, 429
 Gohlke, J. R., 843-68; 845, 847, 848, 850, 851
 Gold, A. M., 977
 Gold, L., 288
 Gold, L. M., 426
 Goldberg, A., 112, 114, 115
 Goldberg, A. L., 928
 Goldberg, A. R., 288, 289, 290
 Goldberg, B., 633, 637
 Goldberg, E. D., 95
 Goldberg, I. H., 245, 246
 Goldberg, M., 735
 Goldberger, R., 736
 Goldé, A., 510, 513
 Goldenbaum, P. E., 431
 Goldfine, H., 132
 Goldfinger, S., 559
 Goldie, L., 546
 Goldman, H., 873, 874, 891
 Goldman, M., 854
 Goldmark, P., 456
 Goldring, E. S., 347, 364, 365
 Goldsmith, J. R., 114
 Goldsmith, L., 250, 252
 Goldstein, A., 636
 Goldstein, I. J., 692
 Goldstein, J. L., 382
 Goldthwait, D. A., 280, 287, 288
 Goldup, A., 759
 Goldwasser, E., 690
 Goldwater, L. J., 96, 102, 108
 Golgher, R. R., 518
 Golini, J., 878
 Goll, D. E., 589, 593, 594
 Gomas, P., 524
 Gompertz, B., 857
 Gompertz, D., 57, 546, 557
 Gong, E. C., 712
 Gonzalez-Sastre, F., 733
 Good, R. A., 536
 Goodall, M. C., 766
 Goodfriend, L., 689
 Goodman, DeW. S., 705, 713
 Goodman, H. M., 259, 288, 381, 383
 Goodman, L., 972
 Goodman, M., 870, 878, 880, 891, 892
 Goodman, S. I., 59, 60, 80, 564
 Goodwin, S. L., 982
 Goor, R. S., 475, 507
 Gorman, A., 205
 Gordon, A. S., 690, 796, 803, 805
 Gordon, D. J., 748
 Gordon, J., 207, 208, 209, 212

- Gordon, M. P., 111
 Gordon-Walker, A., 735, 740
 Gore, V., 108
 Gorell, T., 212, 214
 Gorin, P. A. J., 675, 677, 968
 Gorin, L., 378, 379, 391, 400, 401
 Görlich, L., 221
 Gornall, D. A., 135
 Gornick, F., 890
 Gorski, J., 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 221, 222
 Gospodarowicz, D., 213
 Gosser, L. B., 530, 532
 Got, C., 31, 36, 40
 Goto, T., 102
 Gottesman, S., 439
 Gotto, A. M., 704, 707, 708, 710, 714, 715, 716, 717, 722, 725
 Gottschalk, A., 675, 677, 681, 682, 688, 691
 Gottwik, M., 546
 Gouault, M., 197
 Gould, B. S., 618, 635
 Gould, D. C., 68, 69
 Gould, R. G., 711
 Gould, T. C., 108
 Goulian, M., 302, 304, 305, 306, 307, 308, 311, 325
 Govil, G., 870, 872, 873
 Goyer, R. A., 110, 111, 115
 Godzik-Zolnierkiewicz, T., 115
 Graber, M., 114
 Grace, J. T. Jr., 535
 Graff, S., 538
 Granata, A., 108
 Granboulan, P., 485, 486
 Granda, J. L., 706, 707, 716, 717
 Grandi, M., 334, 336, 348, 350, 354, 356, 358
 Granick, S., 111, 112
 Granmer, D., 531
 Granström, E., 163, 165, 166, 167
 Grant, D. M., 969
 Grant, M. E., 243, 640, 662, 690
 Grant, R. C., 238, 286
 Grantham, J. J., 169
 Gras, G., 114
 Grassmann, W., 627
 Grasso, R. J., 425, 426, 455
 Gratzer, W. B., 251, 252, 396, 873, 878, 889, 892
 Grau, O., 426, 427, 430, 431
 Graves, D. J., 988
 Gray, E., 30, 31
 Gray, E. G., 927
 Gray, G. M., 150
 Gray, G. R., 983
 Gray, R., 180
 Gray, W. R., 641, 651
 Graz, P., 396
 Greaser, M. L., 586, 587
 Greaves, J. H., 191
 Greaves, M. L., 965
 Greaves, M. W., 168
 Greco, M., 354
 Green, C., 712, 713, 718
 Green, D. E., 105, 739, 745
 Green, E. A., 964
 Green, F. C., 627
 Green, H., 504, 509, 633, 637, 690
 Green, H. O., 737
 Green, J., 189
 Green, J. N., 108
 Green, K., 162, 163, 165, 166, 167
 Green, M., 391, 394, 396, 397, 473, 474, 475, 476, 478, 503, 837
 Green, N. M., 854
 Greenawalt, J. W., 359
 Greenaway, W., 102
 Greenblatt, J., 272, 411, 439
 Greenblatt, R. B., 207
 Greene, H. L., 566
 Greene, M. L., 546, 548, 550, 567
 Greene, R. C., 130
 Greengard, P., 33, 48, 49
 Greenhouse, A. H., 558
 Greenlee, L., 478
 Greenlee, T. K. Jr., 651
 Greenman, D. L., 204
 Greenough, W. B. III, 168, 169, 171
 Greenspan, H., 383, 384
 Gregoriadis, G., 688, 689, 760
 Grelling, H., 682, 686
 Greitz, U., 102
 Grenson, M., 794
 Greslin, J. G., 163
 Gresser, I., 538
 Greten, H., 546
 Greville, G. D., 755, 765, 768
 Grey, A. A., 972
 Grey, H. M., 683, 695
 Gribble, T. J., 637
 Grieves, S., 162
 Griffin, C. E., 72, 987
 Griffin, J. E. III, 163, 164, 165
 Griffith, M., 767
 Griffiths, D. E., 358, 359, 362, 363
 Griffiths, J. M., 80
 Griggs, J. H., 108
 Griggs, L. J., 692, 694
 Griggs, R. C., 114
 Grimes, W. J., 494
 Grimming, P., 192
 Grinley, P. M., 163
 Grinstein, M., 112
 Grippo, P., 307
 Grieler, R., 108
 Grisolia, S., 98, 822
 Grisolia Ripoll, J., 98
 Grivell, L. A., 334, 347, 348, 349, 350, 357, 358, 359
 Groene, J. C. L., 397, 398, 399
 Grollman, A. P., 531
 Gronlund, A. F., 790
 Gros, C., 31, 46
 Gros, D., 383, 384, 398
 Gros, F., 280, 379, 382, 383, 384, 394, 396, 398, 402, 403, 411, 412
 Groschel-Stewart, U., 742, 745
 Gross, C. A., 265
 Gross, J., 618, 619, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 654, 659, 660, 890
 Gross, J. D., 302, 303, 304, 305, 307, 320, 323, 786
 Gross, N. J., 335, 344, 345, 347
 Gross, W., 794
 Grossbard, L., 32
 Grossberg, S. E., 533, 534
 Grossman, L., 258
 Grossman, L. I., 347, 364, 365
 Grossman, M., 186, 187
 Grossman, N. R., 138
 Grouk, M. J., 886, 889
 Grubb, A., 149
 Grubb, W. B., 107
 Grudina, L. M., 102
 Gruenwedel, D. W., 99, 241, 243
 Gruezo, F., 686, 687, 692
 Gruger, E. H. Jr., 186
 Grunberg-Manago, M., 378, 382, 383, 384, 398, 400, 402, 403
 Grundfest, H., 936, 937
 Grunstein, J., 307
 Grunwald, E., 910
 Grynspan-Winograd, O., 932
 Gryzbek, H., 110
 Gubb, P. J. D., 105, 106
 Guest, J. R., 79, 100
 Guggenheim, M. A., 534
 Guha, A., 278, 279, 414, 418, 419, 425
 Guidotti, G., 731-52; 732, 734, 737, 739, 740, 741, 742, 743, 744
 Guild, W. R., 306
 Guillemin, R., 171
 Guillery, R. W., 927
 Guilleux, J. C., 209, 222

- Guinn, V., 103
 Guirard, B. M., 16
 Gujer-Kellenberger, G., 481, 484
 Gulbinsky, J. S., 40
 Gulik-Krzywicki, T., 857
 Gul'ko, V. V., 108
 Gunge, N., 362
 Gunn, S. A., 108
 Gunstone, F. D., 141
 Gupta, G. N., 206
 Gupta, R., 873
 Gupta, V., 394
 Gurd, F. R. N., 97, 104, 879
 Gurgo, C., 383, 402
 Guroff, G., 790
 Gurspide, E., 207
 Gustafson, A., 718, 719, 725
 Guth, L., 580, 603
 Guthrie, J. E., 107
 Guthrie, J. P., 740, 746
 Guthrie, R. D., 954, 965, 973
 Guthrie, S., 416
 Gutierrez, A. M., 656
 Gutman, E. D., 262
 Gutwein, E. E., 106
 Guzman, R., 779, 795, 796, 797
 Gwynne, J. T., 740
 György, P., 687
- H
- Haard, N. F., 739
 Haber, E., 854
 Habich, A., 436
 Hacker, B., 205
 Hacker, D., 359
 Hackert, M. L., 963, 988
 Haddock, J. W., 976
 Hadorn, B., 694
 Haeger-Aronson, B., 114
 Haenni, A. L., 380, 381
 Hagen, P.-O., 132
 Hager, G., 428
 Hager, L. P., 735
 Hagerman, D. D., 204
 Haggis, G. H., 741
 Hagihara, H., 795
 Hagiwara, S., 450
 Hagnauer, G., 885
 Hagopian, A., 676, 677, 683, 690, 732, 737
 Hagyard, C. J., 579, 580
 Hahn, F. E., 246
 Hahn, W. E., 205
 Hähnel, R., 208, 213
 Hajra, A. K., 130, 131, 138
 Hakim, A. A., 660
 Häkkinen, I. P. T., 692
 Hakomori, S., 513
 Hakomori, S.-I., 987
 Halbreich, A., 351
 Halford, M. D. A., 979
- Halkerston, I. D. K., 204
 Hall, B. D., 428
 Hall, C. W., 550, 553, 554
 Hall, L. D., 966, 969, 970, 976, 977
 Hall, R., 303, 305
 Hall, R. E., 796, 803
 Hall, W. J., 169
 Hall, Z. W., 925-52; 946, 947
 Hallas-Møller, K., 105
 Hallaway, B. E., 904
 Hallberg, D., 171
 Hallberg, R. L., 341
 Haller, W. A., 102
 Hallett, M., 860
 Hallick, L., 326, 438
 Hallinan, T., 691
 Hallock, J. A., 562
 Hallum, J. V., 519, 521, 530
 Halmann, M., 978
 Halperin, J. A., 100
 Halpern, A., 879
 Halpern, Y. S., 792, 793
 Halpin, R. A., 605, 746
 Halvorson, H. O., 334, 346
 Ham, E. A., 171
 Ham, J. T., 959
 Hama, H., 585
 Hamada, K., 609
 Hamaguchi, H., 102, 740
 Hamaguchi, K., 243
 Hamberg, M., 162, 163, 164, 165, 166, 167
 Hameed, K. A., 937
 Hamilton, F. D., 72
 Hamilton, J. A., 72, 73, 74
 Hamilton, J. G., 131
 Hamilton, L. D., 236, 245
 Hamilton, R. L., 718, 721, 722
 Hamilton, T. H., 204, 205, 209, 222
 Hamilton, W. C., 958
 Hamkalo, B. A., 438
 Hamm, L., 309
 Hammes, G. G., 35, 36, 48, 763
 Hammond, K. B., 59, 60, 80
 Hamor, T. A., 962
 Hanafusa, H., 474, 510, 511, 513
 Hanafusa, T., 510, 511, 513
 Hanahan, D. J., 148, 734, 765
 Hanai, J., 552, 556
 Hanawalt, P. C., 318, 324, 325, 334
 Hanby, W. E., 870, 873, 880
 Hancock, D. J., 849, 857, 859
- Handa, S., 987
 Handlogten, M. E., 787
 Hansessian, S., 970
 Hanton, D. P., 95, 107
 Hanna, C., 187
 Hanna, M. L., 77, 78, 79
 Hanna, R., 978
 Hammerz, L., 102
 Hannig, K., 627
 Hänninen, O., 154
 Hansby, J. E., 358, 359
 Hansen, H. N., 963
 Hansen, N. M., 108
 Hansen, S., 545, 562
 Hanset, R., 633
 Hanson, C. V., 904, 917
 Hanson, J., 591, 592, 593
 Hanson, K. R., 989
 Hanson, R. L., 42
 Hanson, T. L., 41
 Hansson, K., 99
 Happe, J. A., 35
 Harada, B., 434
 Harada, T., 131
 Harano, Y., 31, 32, 46
 Haranyi, M., 583
 Harary, I., 61
 Hardesty, B., 531
 Harding, J. J., 618
 Hardingham, T. E., 683
 Hardman, K. D., 817, 838, 879
 Hardwick, R., 846
 Hardy, D. J., 607
 Hardy, M. F., 582
 Hardy, S. J. S., 385, 386, 390, 391, 398, 399
 Harel, L., 520
 Harkness, R. D., 618, 640
 Härle, E., 474, 475, 507
 Harlow, R. D., 135
 Harmon, R. E., 978
 Harold, R. M., 805
 Harper, E., 640, 660
 Harrap, B. S., 892
 Harrington, W. F., 578, 579, 581, 590, 592, 630, 653, 870, 890, 891, 903, 912, 916, 919
 Harris, A. J., 928, 948
 Harris, C. I., 582, 583
 Harris, E. D., 743, 744
 Harris, G. S., 209
 Harris, H., 543, 566
 Harris, I., 582
 Harris, J. R., 741
 Harris, J. S., 49
 Harris, J. W., 557
 Harris, P. D., 108
 Harris, P. L., 187
 Harris, R. J. C., 767
 Harrison, B. D., 367
 Harrison, L. W., 35
 Harrison, R., 977
 Harrison, R. G., 581, 592
 Harrison, S. C., 472, 492,

- 494, 738, 746, 747
 Harriss, R. C., 102
 Hart, C. J., 707, 710
 Hart, P., 137, 138
 Hart, P. A., 873, 880
 Hart, R. G., 394
 Harte, R. A., 957
 Hartley, B. S., 660
 Hartley, J. W., 512
 Hartman, J. L., 651
 Hartman, K. A., 98, 472
 Hartmann, G., 411, 412, 424
 Hartmann, R. C., 171
 Hartroft, W. S., 189
 Hartshorne, D. J., 586, 587, 588, 594, 602
 Hartsuck, J. A., 816
 Harvie, N. R., 704, 713
 Hasan, J., 110, 113
 Hascall, V. C., 683, 694
 Haschemeyer, R. H., 473
 Haselkorn, R., 258, 276, 393, 410, 419, 426
 Hashim, G., 733, 735, 737
 Hashim, S. A., 186
 Hashimoto, M., 873, 874, 891
 Hasinoff, C. W., 732
 Haskell, E. H., 306, 311
 Haslam, J. L., 907, 916
 Haslam, J. M., 334, 348, 350, 358, 359, 360, 361, 362, 364
 Haslett, G. W., 674
 Hass, G. M., 114
 Hassan, H., 186
 Hasselbach, W., 154, 605, 606, 783
 Hassenbank, R., 395
 Hatanaka, M., 511
 Hatano, M., 889
 Hatano, S., 608, 609, 610
 Hatch, F. T., 737
 Hatefi, Y., 736
 Hathcock, J. N., 184
 Hathway, D. E., 937
 Hatta, T., 367
 Hattman, S., 449, 450
 Hattori, M., 546
 Hätzel, L., 207, 209, 210, 213, 214
 Hauber, J., 148, 149
 Haugland, R. P., 853, 890
 Hauschka, P. V., 630, 653
 Hauser, H., 153
 Haussler, M. R., 172, 180
 Havel, R. J., 716, 717, 721, 722, 723
 Hawkinson, S. W., 964
 Hawley, E. S., 359
 Haworth, W. N., 961
 Hawthorne, J. N., 152
 Haxby, J. A., 767
 Hay, A. J., 684
 Hayashi, K., 946
 Hayashi, M., 56, 57, 315, 417, 418, 476, 477, 478
 Hayashi, S., 795
 Hayashi, T., 106, 603, 684
 Hayashi, Y., 417, 418, 884, 885, 886
 Haydon, D., 754, 757, 759, 765, 766, 770
 Hayduk, U., 627
 Hayes, D., 433
 Hayes, F., 433
 Hayes, F. N., 278
 Hayes, J. W., 848
 Haynes, D. H., 873
 Haynes, M., 251, 252
 Hays, J. B., 799
 Haywood, P. W., 492
 Head, B., 537
 Healy, J. W., 261
 Healy, K., 132, 133, 135
 Heap, R. B., 770
 Hearst, J. E., 243, 252
 Heath, E. C., 953, 978
 Heath, M. F., 674
 Heath, R. G., 102
 Hebb, C., 926
 Hebert, R. R., 472
 Hecht, N., 433
 Hechter, O., 204
 Hechtman, P., 543, 778, 784, 786
 Hedqvist, P., 169
 Hegyi, G., 583
 Heheld, T.-T., 705
 Hehl, J. L., 131
 Hehre, E. J., 977, 986
 Heidemann, E., 619, 623, 626
 Heidrich, H. G., 629
 Heil, A., 411, 412, 439
 Heimberg, M., 705
 Heinemann, S., 421, 422, 424
 Heinrich, H. C., 102
 Heinrich, W., 619, 623, 626
 Heinrichs, W. L., 207, 208, 209
 Heinrichson, R. L., 674
 Heins, H. L. Jr., 546
 Heinz, E., 778, 780, 794, 804
 Heisenberg, W., 19, 21, 22
 Heitz, J. R., 849, 850, 851
 Helenius, A., 716, 717
 Helfgott, C., 242
 Helinski, D. R., 308, 335, 343
 Hell, C. E. B., 102
 Helle, K. B., 930, 932
 Helleiner, C. W., 100
 Heller, J., 114, 735, 747
 Heller, M. J., 34, 35
 Hellerman, L., 97
 Helleqvist, C. G., 987
 Hellmann, W., 694
 Helms, A., 350
 Helmstaedt, D., 171
 Helmstetter, C. E., 302, 313, 321, 324, 325, 326
 Helser, T. L., 363, 391
 Hemker, H. C., 197
 Hemming, F. W., 184
 Hems, R., 57, 58, 969, 970
 Hemsworth, B. A., 929
 Henderson, A., 169
 Henderson, C., 107, 114
 Henderson, J. F., 546, 548, 549, 550, 563, 567, 568
 Henderson, P. J. F., 766
 Henderson, R., 816
 Hendler, R. W., 757
 Hendler, S. S., 308
 Hendrickson, J. B., 870
 Hendrickson, W. A., 816, 826
 Hendrix, R., 484, 496
 Hengstenberg, W., 735
 Henke, G., 102, 108
 Henning, R., 143
 Henning, U., 806
 Henninger, M., 481, 483, 489, 495, 496
 Henriette, M., 192
 Henry, D. W., 972
 Henry, P. H., 506, 507
 Henson, E., 654, 655, 657, 658
 Heppel, L. A., 778, 786, 792, 793, 795, 804
 Herbert, D., 105
 Herbert, P., 723
 Herbert, V., 80
 Herbst, M. M., 55, 60, 62
 Hermann, K. O., 779, 796, 802
 Hermans, J. J., 887
 Hermans, J. Jr., 886
 Hermanson, M. A., 191, 193, 194
 Hernandez, A., 348
 Hernberg, S., 110, 112, 113, 114
 Herndon, J. H. Jr., 547
 Herndon, W. C., 523
 Herr, R. R., 975
 Herrick, G., 263, 264
 Herriott, J. R., 816, 833, 834
 Herrlich, P., 289, 414, 418, 419
 Herrmann, W. L., 207, 208
 Hers, H. G., 545, 547, 548, 551, 552, 554, 556
 Herschkowitz, N. N., 553, 556
 Hershey, A. D., 272, 421
 Hershey, J. W. B., 383, 384
 Herskowitz, I., 319, 327, 422, 425

- Hertelendy, F., 168
 Herting, D. C., 182
 Herz, R., 603, 604, 605
 Herzberg, M., 348, 383, 384
 Herzfeld, F., 354
 Herzog, A., 396, 403
 Herzog, R., 348
 Hess, C. E., 546
 Hess, G. P., 815, 818, 827
 Hewins, S., 111
 Hexter, A. L., 114
 Heyde, E., 29-54; 37, 38
 Heyde, M. E., 35
 Heyn, G., 132
 Heywood, J., 447-66
 Hiai, S., 242
 Hickman, J., 688, 689
 Hickman, R. O., 564
 Hieronimus, B., 207
 Higashi, S., 583
 Highberger, J. H., 621
 Higman, H. B., 937
 Higo, K., 390
 Hikichi, K., 873
 Hill, C. H., 654
 Hill, D. A., 537
 Hill, E. E., 129, 135, 136, 137, 139, 141, 151, 152
 Hill, H. A. O., 65, 73, 83, 100
 Hill, J., 907
 Hill, L. F., 180
 Hill, M. W., 755, 760, 771
 Hill, R. B., 195, 196
 Hill, T. L., 882
 Hill, W. E., 393
 Hillarp, N.-A., 930, 932
 Hille, M. B., 383
 Hilleman, M. R., 519, 520, 521, 522, 523, 532, 537
 Hillier, A. P., 770
 Hillier, K., 162
 Himmel, C. M., 851
 Himmelfarb, S., 578, 579, 581, 590
 Himmelweit, F., 520
 Hincley, A., 764
 Hindley, J., 383
 Hinds, H. A., 304
 Hinds, K. R., 60, 557, 558
 Hinkle, D. C., 279, 284, 285, 287, 412
 Hinman, J. W., 161-78; 161
 Hiradi, J., 106
 Hirahashi, T., 456
 Hirasawa, K., 102
 Hirata, H., 805
 Hirata, S., 343, 345
 Hirayama, K., 102
 Hiromi, K., 106, 985
 Hirose, K., 102
 Hirota, Y., 304, 307, 317, 320, 323, 740, 746
 Hirs, C. H. W., 679, 684
 Hirsch, P., 172
 Hirschbein, L., 280, 415, 416
 Hirschberg, S. E., 538
 Hirschman, S. Z., 247
 Hirst, E., 691
 Hirst, G. K., 474
 Hirt, B., 474, 475
 Hirth, L., 99, 473
 Hirz, R., 707, 710, 711, 714, 715, 716
 Hitotsumachi, S., 509
 Hladky, S. B., 766
 Ho, M., 521, 530, 531, 532, 534, 536
 Ho, M. W., 552, 554, 555
 Ho, W., 31
 Ho, W. K. K., 712
 Hobbs, J. B., 523
 Hoch, F. L., 97
 Hodge, A. J., 627
 Hodge, J. E., 981
 Hodgkin, D. C., 878
 Hodgson, A., 404, 524, 525
 Hoefnagel, D., 563
 Hoekstra, W. G., 206
 Hoekstra, W. P. M., 459
 Hoenni, A. L., 392
 Hoet, J. J., 207, 213
 Hofer, H. W., 46
 Hoffbauer, R. W., 31
 Hoffee, P., 794
 Hoffer, B. J., 169
 Hoffman, J. F., 778
 Hoffman, S. J., 873, 879
 Hoffmann, R., 870, 872, 878
 Hoffmann-Berling, H., 302, 310, 311, 314, 468
 Hofschneider, P., 417
 Hofstee, B. H. J., 106
 Hofstätter, T., 359
 Hogenkamp, H. P. C., 55, 62, 72, 74, 75, 76, 80, 83, 85
 Hogg, N. M., 679
 Hogg, R. W., 797
 Högland, S., 475
 Hohn, B., 315, 468, 472, 473, 477, 478, 479, 484, 495, 496
 Hohn, T., 472, 473, 477, 478, 479, 484, 495, 496
 Hokin, L. E., 778, 780
 Holborow, E. J., 745
 Holcenberg, J. S., 61
 Holden, J. T., 791, 792, 801
 Holden, K. G., 692, 694
 Holdsworth, E. S., 170
 Holick, M. F., 172, 180
 Holland, I. B., 393
 Holland, J. J., 478, 494, 496, 534, 740, 746
 Holland, P., 546
 Holland, R. J., 64, 65
 Hollenberg, C. P., 336, 339, 340, 342, 355, 358, 365, 366
 Hollenberg, P. F., 31, 46
 Hollingworth, B. R., 379
 Holloway, B. W., 450
 Holm, B., 416
 Holman, M. E., 929
 Holman, R. T., 164
 Holmer, G., 131
 Holmes, S., 85
 Holmes, S. W., 163
 Holowczak, J. A., 474
 Holt, C. E., 337
 Holtzapfle, P. G., 545, 549
 Holtzer, A., 590, 885
 Holtzer, A. M., 875, 876
 Holtzer, H., 609
 Holtzman, E., 933
 Holtzman, N. A., 564
 Holub, B. J., 139, 140, 141
 Holz, R., 766
 Holzwarth, G., 748, 874, 879
 Hom, E., 545
 Hommes, F. A., 185, 186, 547, 558
 Hong, B.-S., 945
 Hong, R., 536
 Honikel, K. O., 411
 Honnen, L., 627
 Hooper, J. K., 746
 Hood, F. P., 879, 890
 Hood, L., 679, 690
 Hoogveen, J. T., 102, 113, 734, 740, 741, 743
 Hooker, T. M. Jr., 880
 Hoolboom, H., 114
 Hooton, B. T., 31, 32, 44, 45
 Hoover, A. W., 108
 Hopfer, U., 767
 Hopfinger, A. J., 874
 Hopkins, A., 114, 115
 Hopkins, N., 272, 273, 274, 275, 421, 423, 424
 Hopkins, S. M., 141, 142, 146
 Hopper, S. P., 72
 Hoppert, C. A., 108
 Hopsu, V. K., 110
 Hore, P., 985
 Horecker, B. L., 106, 110, 795, 796
 Hori, J., 109
 Hörlin, D., 163
 Hörmann, H., 626
 Horn, B., 534
 Horne, R. W., 475, 476, 478, 479, 722, 767, 771
 Horning, M. G., 163
 Horowitz, J., 880
 Horrigan, D. L., 557
 Horrocks, L. A., 130, 131, 132, 134
 Hors-Cayla, M. C., 565
 Hörtnagl, (Heide), 153, 932
 Hörtnagl, (Helmut), 153, 932

- Horton, D., 965, 967
 Horton, E. W., 162, 163, 167, 171
 Horwitt, M. K., 184, 187
 Horwitz, D. L., 722
 Hosfield, W. B., 563
 Hosoda, J., 480, 481, 483, 485, 496
 Hosohara, K., 102
 Hosokawa, K., 388, 390
 Hosoyama, Y., 106
 Hosteller, K. Y., 144, 345
 Hotta, K., 603
 Hotta, N., 98
 Hough, A., 585
 Hough, D., 222
 Hough, E., 975
 Hough, L., 684
 Hougie, C., 765
 Housley, T., 642, 657, 658, 659
 Houssais, J. F., 348
 Hoveke, T. P., 744
 Hoving, R., 880
 How, M. J., 979
 Howard, A. S., 976
 Howard, C. H., 708, 710
 Howard, J. B., 565
 Howarth, G. B., 975
 Howatson, A. F., 474, 488
 Howe, C., 316, 493, 494, 740
 Howell, J. I., 771
 Howell, R. R., 545, 546
 Hrkai, Z., 689
 Hruska, F. E., 873, 972
 Hsia, D. Y.-Y., 547, 550
 Hsia, S. L., 163
 Hsia, Y. E., 59, 546, 547, 548, 557, 558
 Hsu, C. C., 806
 Hsu, C.-H., 243
 Hsu, K. C., 493, 494
 Hsu, M.-C., 873, 880
 Hu, C. C., 552, 555
 Huang, A. S., 535
 Huang, C.-C., 680
 Huang, C. H., 858
 Huang, E. S., 475
 Huang, R. C. C., 252
 Huang, S. L., 240, 247
 Huang, T., 547
 Hubacek, J., 459, 460
 Hubbard, J. I., 933
 Hubbell, W. L., 768, 807
 Huber, R., 816, 835
 Huberman, J. A., 263, 318
 Hübscher, G., 129, 139, 144, 145
 Huchet, M., 944, 947
 Hodgson, P., 545, 552, 556
 Hudson, B., 335, 342
 Huebner, R. J., 512, 514
 Huennkens, F. M., 59, 79
 Huet, J., 154
 Huff, J. W., 111
 Hug, G., 561, 565, 566
 Hughes, A., 207, 210
 Hughes, B. P., 135
 Hughes, E. A., 546
 Hughes, T. R., 34, 35
 Hughes, W. L., 711, 716
 Hughes, W. L. Jr., 97
 Hugh-Jones, M. E., 536
 Huijing, F., 545, 548
 Huldins, D. W. L., 524
 Hull, D., 557
 Hull, R., 473
 Hulme, E. C., 49
 Hulme, J. D., 562
 Hultin, E., 105
 Hultquist, D. E., 674
 Human, M. L., 448
 Humes, J. L., 171
 Humphrey, J. H., 767
 Hung, P. P., 473, 474, 738
 Hunkeler, F. L., 33
 Hunt, D. J., 964
 Hunt, J. C., 162
 Hunt, J. M., 535
 Hunt, L., 683
 Hunt, R. D., 654
 Hunt, S., 691
 Hunter, C. E., 990
 Hunter, H. S., 494
 Hunter, J. A., 337
 Hupkes, J. V., 769
 Hurlbut, W. P., 933
 Hursh, J. B., 114
 Hurst, D. J., 208, 209, 210, 211, 212, 213, 214, 220
 Hurst, J. K., 36, 48
 Hursthouse, M. D., 975
 Hurwitz, J., 106, 280, 283, 287, 290, 308, 311, 456
 Husbands, D. R., 136, 137, 139
 Hussey, C., 277, 434, 435, 436, 437
 Huszar, G., 582
 Hutchins, J. E., 411
 Hutchinson, C. R., 975
 Hutchison, C. A., 316, 476, 477
 Hutchison, J. D., 858
 Hutton, J. J. Jr., 635, 636
 Huttunen, J. K., 48
 Hutzler, J., 545, 546, 550, 567
 Huxley, A. F., 607, 608, 609, 610
 Huxley, H. E., 591, 593, 609
 Hvidt, A., 884, 903, 904, 908, 909, 912, 914, 915, 917, 918, 919
 Hyman, R. W., 286, 287, 288, 290, 411, 418, 419
 Hynie, S., 169
 I
 Iancu, C., 619, 623
 Ibarra, R. R., 537
 Ibrahim, A. B., 107
 Ibuki, F., 111
 Ichihara, K., 105
 Ichimura, I., 855
 Ide, M., 431
 Idel'son, L. I., 112
 Igarashi, K., 384, 398, 411, 433
 Igarashi, R. T., 435
 Igarashi, S., 619, 623, 624, 627, 628, 630
 Ihler, G., 311, 314, 317
 Iio, T., 910
 Iizuka, E., 880
 Ikeda, H., 486
 Ikeda, M., 214
 Ikegami, A., 904, 910, 911, 914
 Ikemura, T., 393
 Ikenaka, T., 680
 Ikai, T., 584
 Ilarionova, N. G., 885
 Iles, G. H., 732, 734, 745, 746, 747
 Illingworth, D. R., 152, 154
 Imada, S., 490, 491
 Imae, Y., 302, 310
 Imahori, K., 880
 Imami, R. H., 186
 Imamura, A., 872, 873
 Imamura, K., 594
 Implombato, F. S. A., 740
 Imura, N., 83, 100
 Inch, T. D., 965
 Inesi, G., 605
 Infante, A. A., 383, 606, 632, 635
 Ingraham, L., 421
 Ingraham, L. L., 60
 Ingram, W. C., 610
 Ingwall, R. T., 873, 884, 885, 886, 887, 889, 890, 892
 Inman, D. R., 207, 208, 209
 Inman, J. K., 112
 Inman, R. B., 257, 306, 314, 315, 317, 318, 324, 421, 480
 Inners, L. D., 255
 Inokuchi, H., 315, 319, 323
 Inoue, K., 767
 Inoue, T., 98
 Inouye, M., 740, 746
 Inouye, S., 973
 Inui, Y., 786
 Ippen, K., 265, 270, 410
 Ireland, D. M., 171
 Iriki, Y., 986
 Irlon, E., 83, 101
 Irons, T. G., 115
 Irreverre, F., 547, 557, 559
 Irvine, R. A., 689
 Irvine, W. T., 207

- Isaac, D. C., 144
 Isaacs, A., 517, 519, 532, 534
 Isaacs, N. W., 963
 Isbell, H. S., 982, 990
 Isemura, M., 681, 696
 Isemura, T., 879, 892, 910
 Isenberg, I., 244, 245, 848, 855
 Isensee, I., 99
 Ishaq, K. S., 131
 Ishihama, A., 280, 281, 287
 Ishii, S., 946
 Ishikawa, H., 609
 Ishitani, H., 56
 Ishitsuka, H., 384, 398
 Ishizawa, M., 108
 Ismail, I. A., 141
 Iso, K., 886, 888
 Isono, K., 976
 Israel, M., 929, 935, 943
 Israelsson, U., 163, 165, 167
 Itami, T., 162
 Ito, A., 735
 Ito, H., 164, 165, 171
 Ito, T., 392, 973
 Itoh, K., 873
 Itoh, T., 386
 Iwakawa, Y., 557, 558
 Ius, A., 880
 Ivanov, V. I., 280
 Ivanov, V. T., 873, 881
 Iverius, P. H., 723
 Iwai, K., 684
 Iwama, Y., 262
 Iwan, D., 384, 398
 Iwanaga, S., 148, 149
 Iwasaki, K., 383
 Iwasaki, S., 929
 Iwatsubo, M., 48, 49, 857
 Iwaya, M., 310, 314, 315, 477
 Iyer, R. N., 696
 Iyer, V. N., 310

 J
 Jackobs, J., 962
 Jackson, D. S., 640, 690
 Jackson, G., 847
 Jackson, R. L., 679, 740, 742
 Jacob, C., 417
 Jacob, F., 264, 269, 315, 320, 323, 388, 410, 411, 423, 432, 526, 740, 746
 Jacob, J. C., 545, 552, 555
 Jacob, J. L., 34
 Jacob, M. I., 107
 Jacobi, V., 964
 Jacobs, A., 692
 Jacobs, E., 107
 Jacobs, H. G., 626, 640, 676, 677
 Jacobs, H. K., 31, 32, 42, 44
 Jacobs, M. B., 102
 Jacobs, R. M., 108
 Jacobsen, H., 255
 Jacobson, C. B., 554, 559, 561, 987
 Jacobson, G., 66, 985
 Jacobson, G. R., 988
 Jacobson, H. I., 206, 207, 208, 210, 211, 213
 Jacobson, M. F., 478, 479, 496
 Jacobson, R. A., 963, 988
 Jacques, P. J., 564
 Jaenicke, L., 79
 Jaenisch, R., 319, 507
 Jaffe, B. M., 163
 Jagannathan, V., 32
 Jagendorf, A. T., 921
 Jager, F. C., 186
 Jahiel, R. I., 538
 Jain, S. C., 245, 246, 292, 817, 838
 Jakubowski, M., 97
 James, A. T., 494
 James, E., 30, 39, 40, 48
 James, V. H. T., 207
 Jamieson, G. A., 663, 673, 675, 684, 696, 732, 734, 740
 Jamieson, J. C., 691
 Jamieson, J. D., 142
 Janáček, K., 778
 Jandl, J. H., 110, 112
 Janetzko, R., 851
 Janin, J., 31, 46, 48, 49
 Jansen, B., 480, 483, 484, 486
 Jansoni, J. N., 816
 Janssen, E. T., 721, 723
 Jaques, L. B., 192
 Jardetzky, O., 873, 878, 881, 884, 890
 Jaret, R. S., 973, 974
 Jarvenpää, T., 103
 Jarvis, W. T. S., 977
 Jaspars, E. M. J., 473
 Jayle, M. F., 688
 Jayme, M., 56, 63
 Jeanloz, R. W., 675, 685, 954, 981
 Jeffrey, G. A., 961, 962, 963
 Jeffrey, J. J., 660, 662
 Jeng, Y., 476
 Jenkins, I. D., 978
 Jenkins, M., 262
 Jenkinson, D. H., 928, 937
 Jennings, H. J., 965
 Jensen, D. E., 260
 Jensen, E. V., 203-30; 204, 207, 208, 209, 210, 211, 212, 213, 214, 220, 221, 222, 223
 Jensen, L. C., 706, 714, 718
 Jensen, L. H., 816, 833, 834, 848
 Jensen, R. H., 241
 Jensen, S., 83, 100, 101
 Jensen, W. N., 110, 113, 744
 Jeppensen, P. G. N., 383
 Jernelöv, A., 83, 100, 101
 Jerstad, A. C., 103
 Jervis, R. E., 102
 Jessup, S. J., 170, 171
 Jett, M., 673, 684
 Jeuck, K., 171
 Jevons, S., 762, 765
 Jimenez, S. A., 631
 Jobe, A., 265, 269
 Jöbsis, F. F., 604
 Joel, P. B., 204
 Joensuu, O. I., 95
 Joffe, S., 135
 Joffre, M., 106
 Johansen, G., 904, 917, 918
 Johansen, J. T., 904
 Johansen, P. G., 694
 Johansson, H., 207
 John, H. A., 609
 John, H. M., 16
 John, R., 722
 Johnels, A. G., 102
 Johnson, A. D., 106, 108
 Johnson, B. C., 57, 66, 184, 194, 195, 196, 197
 Johnson, B. J., 184
 Johnson, B. P., 104
 Johnson, C. A., 743, 744
 Johnson, C. K., 957
 Johnson, D. G., 935
 Johnson, G. S., 171, 972
 Johnson, H. V., 197
 Johnson, I., 679
 Johnson, J., 169
 Johnson, L., 972
 Johnson, L. F., 873, 968
 Johnson, M. C., 854
 Johnson, M. J., 105
 Johnson, P., 582, 583
 Johnson, P. G., 691
 Johnson, R. L., 941
 Johnson, R. N., 978, 977
 Johnson, R. S., 108
 Johnson, S. M., 755, 766, 769
 Johnson, W. C. Jr., 237
 Johnson, W. M., 56
 Joldik, W. K., 259, 474, 493, 534
 Jonard, G., 99
 Jonderko, G., 109, 111, 112
 Jonek, J., 110
 Jonek, T., 110
 Jones, A. J., 34, 35, 969
 Jones, B. M., 745
 Jones, D., 538
 Jones, D. E., 35
 Jones, E. E., 564

- Jones, I. G., 336, 338, 339, 341
 Jones, J. G., 45
 Jones, J. H., 57
 Jones, J. K. N., 975
 Jones, J. W., 719
 Jones, O. W., 279, 280, 281, 282, 283, 284, 285
 Jones, P. C. T., 745
 Jones, R. L., 162, 163, 167
 Jones, S. F., 933
 Jones, T. H. D., 735, 798
 Jonsson, C. E., 162, 163, 164
 Jordan, C., 251
 Jordan, D. O., 244
 Jordan, J. M., 335, 342, 343, 366
 Jorgensen, P. L., 734, 745
 Jose, F. R., 102
 Joselow, M. M., 102
 Josephs, R., 870, 903
 Joshi, M. D., 32
 Jossio, F., 197
 Jost, J.-P., 170
 Jouanneau, J., 679
 Joubert, F. J., 884
 Jovenaz, G. H., 163
 Joyce, C. R. B., 113
 Juarez, H., 654
 Jubiz, W., 163
 Juhlin, L., 168
 Julian, G. R., 855
 Julian, J. A., 207, 209
 Juliano, R., 734, 740, 741, 743
 Jullien, P., 517
 Jumbblatt, J., 492, 494
 Jung, G., 970
 Jung, I., 208, 223
 Jungalwala, F. B., 140, 145, 147
 Jungblut, P. W., 207, 208, 209, 210, 211, 212, 213, 214, 220, 221
 Jurale, C., 524
 Justice, P., 547, 550
 Jütting, G., 207
 Juva, K., 634, 635, 705

 K
 Kaback, H. R., 732, 733, 778, 784, 786, 797, 799, 805, 806
 Kaback, M. M., 545, 546, 547
 Kabat, E. A., 686, 687, 692
 Kadenbach, B., 146, 356, 359
 Kaempfer, R. O. R., 382, 402
 Kaerner, H. C., 468, 473
 Kagan, F., 975
 Kagemoto, A., 884, 885, 886
 Kågi, J. H. R., 97, 104, 105, 921
 Kahan, B. D., 693, 734, 745
 Kahana, D., 546
 Kahana, S., 484, 486
 Kahn, L., 209
 Kahwanago, I., 207
 Kaifu, Y., 844
 Kaiser, A. D., 275, 421
 Kaiser, W., 145
 Kaji, A., 384, 398
 Kakafuda, T., 511
 Kakiuchi, K., 892
 Kakudo, M., 892
 Kalamkarova, M. B., 591
 Kalbacher, B., 434
 Kalckar, H. M., 13
 Kaley, G., 168
 Kalf, G. F., 345
 Kallai, O. B., 829
 Kallen, R. G., 904, 906, 908, 910, 911, 912, 913, 914, 915, 916
 Kallenbach, N. R., 904, 912, 914, 917, 920
 Kalnitsky, G., 106
 Kalouskova, J., 102
 Kaltschmidt, E., 385, 386, 391, 398
 Kalvoda, L., 972
 Kamen, R. I., 415, 416, 433, 434
 Kamerling, J. P., 971
 Kameyama, T., 280, 281, 287
 Kamikubo, T., 56, 57
 Kamiya, T., 279
 Kämmerer, F.-J., 975
 Kamp, H., 31
 Kan, L. S., 98
 Kanazawa, T., 594, 605, 783
 Kane, J. P., 716, 717, 721, 722, 723
 Kaneko, T., 171
 Kanfer, J. N., 545, 552
 Kang, A. H., 618, 619, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 653, 656, 659
 Kang, C. Y., 474
 Kang, E. S., 562
 Kang, H. S., 507
 Kannin, H., 735
 Kanoh, H., 139, 140, 141
 Kanzaki, F., 102
 Kaper, J. M., 468, 469, 471, 472, 478
 Kaplan, A., 635
 Kaplan, A. S., 474, 494
 Kaplan, B. H., 66, 67, 68
 Kaplan, D., 552, 553
 Kaplan, J. L., 549
 Kaplan, N. O., 16, 31, 32, 44, 45, 675
 Kaplan, R. S., 474
 Kaplan, S., 381
 Kapoulas, V. M., 130
 Kapuler, A. M., 291, 855
 Kara, J., 367
 Karaday, S., 971
 Karam, J. D., 309
 Karasz, F. E., 886
 Karim, S. M. M., 162, 163
 Karkas, J. D., 436
 Karle, I. L., 964
 Karle, J., 964
 Karlin, A., 939, 940, 941, 944, 947
 Karlsson, E., 945
 Karnovsky, M. L., 135
 Karol, M. H., 345
 Karplus, M., 877
 Karr, G. M., 630, 653
 Karremann, G., 108
 Karstadt, M., 411, 412
 Karsznia, R., 207, 208
 Karzon, D. T., 536
 Kasal, M., 584, 585, 860, 943, 944, 946, 947
 Kasai, T., 427
 Kasamatsu, H., 319, 344, 345
 Kasha, M., 845
 Kashing, D. M., 732
 Kashket, E. R., 797
 Kashner, L. A., 933
 Kasper, C. B., 732
 Kass, S. J., 475
 Kassab, R., 31, 32, 39, 40, 42, 43, 45, 46, 47, 48
 Kassenaar, A., 112
 Kastner, O., 538
 Kasuya, M., 860
 Katagiri, S., 873, 879, 880, 881, 884
 Kataja, E., 379, 400, 401
 Katchalski, E., 869-902; 171, 870, 880, 884, 885, 886, 889, 890, 891, 892
 Katchalsky, A., 884
 Kates, J. R., 524
 Kates, M., 130, 154, 494
 Kato, A., 105, 106
 Kato, J., 207
 Kato, K., 57, 345, 366
 Kato, T., 382
 Katoh, S., 736
 Katona, L., 683
 Katsumata, T., 106
 Katsunuma, H., 102
 Katsura, N., 676, 683
 Katz, B., 927, 928, 929, 934, 938
 Katz, E. P., 657
 Katz, H. S., 935
 Katz, S., 713
 Katzen, H. M., 32
 Katzenellenbogen, B. S., 206, 222
 Katzman, P. A., 215
 Katzman, R. L., 675
 Kaudewitz, F., 359
 Kaufman, E. D., 891
 Kaufman, H. E., 525, 537

- Kaul, D. K., 108
 Kaulin, H. D., 143
 Kauzmann, W., 889
 Kavanau, J. L., 754
 Kawahara, K., 877, 884, 885, 886
 Kawai, F., 106
 Kawai, Y., 311, 314
 Kawamura, M., 584, 590
 Kawano, S., 108
 Kawasaki, T., 690
 Kawashima, T., 208, 209, 210, 211, 213, 214, 220
 Kawauchi, S., 148, 149
 Kay, C. M., 241, 348
 Kay, J. A., 892
 Kay, L. M., 627
 Kay, W. W., 790
 Kayden, H., 722
 Kayne, F. J., 34, 47
 Kazal, L. A., 191
 Kazmier, F. J., 194
 Ke, Y. H., 521, 531
 Keele, D. K., 568
 Keenan, T. W., 142, 143
 Kefalides, N. A., 627, 628, 637, 638, 639
 Kehoe, R. A., 108
 Keiding, J., 346, 366
 Keighley, G., 690
 Keilin, D., 92
 Keirns, J. J., 736
 Kellenberger, E., 469, 479, 480, 481, 483, 484, 485, 486, 487, 488, 489, 496
 Kellenberger-van der Kamp, C., 481, 483, 496
 Keller, J., 680, 684
 Keller, J. M., 474
 Keller, S., 651
 Keller, W., 545, 550
 Kellerman, G. M., 350, 358, 359, 360, 361, 365
 Kelley, T. F., 718
 Kelley, W. N., 546, 548, 549, 550, 551, 563, 567, 568
 Kellie, A. E., 204, 207, 210, 213
 Kelly, K. A., 794
 Kelly, R. B., 946, 947
 Kelly, T. J. Jr., 292, 450, 454, 459, 461, 506, 507
 Kelus, A. S., 722
 Kemp, C. L., 488
 Kemp, R. B., 745
 Kemp, R. G., 31, 46, 49
 Kench, J. E., 105, 106, 108, 113
 Kendrew, J. C., 878
 Kendrick-Jones, J., 581, 582, 589, 590, 592
 Kenkare, U. W., 31
 Kennard, C. H. L., 963
 Kennard, O., 960, 962, 965
 Kennedy, A., 108
 Kennedy, E. P., 131, 134, 144, 547, 552, 555, 735, 778, 779, 797, 798, 799
 Kennedy, F. S., 81, 83, 100, 101
 Kennedy, J. L., 545, 550
 Kennedy, R., 721, 723
 Kennedy, W. R., 545, 552, 556
 Kennell, D., 433
 Kenner, G. W., 881
 Kenner, R. A., 853
 Kennison, R. D., 194
 Kent, P. W., 969, 970, 976
 Kenyon, G. L., 48
 Kenzora, J. E., 637
 Kepes, A., 778, 779, 794, 797
 Kerjan, P., 436
 Kern, M., 690, 691
 Kernohan, J. C., 851
 Kerr, I. M., 534, 535
 Kerr, J. D., 184
 Kerr, M. S., 334, 338
 Kershenobich, D., 633
 Kerszman, G., 450
 Kerwar, G. K., 796, 805
 Kerwar, S. S., 59, 64, 65, 79
 Kessel, D., 781, 784, 786
 Kessenich, A. V., 970
 Kessler, A., 618
 Kessler, D., 334, 609
 Kessler, D. P., 794
 Keston, A. S., 984
 Keto, A. I., 32
 Keutel, H. J., 31
 Kevorkian, V., 103
 Keyes, P. L., 210
 Keynes, R. D., 771
 Khan, A., 98
 Khesin, R. B., 411
 Khobot'ev, V. G., 113
 Khorana, H. G., 311
 Kibler, R. F., 737
 Kidson, C., 250
 Kidwai, J. R., 509
 Kiedrowski, A., 115
 Kiefer, H., 940
 Kiehn, E. D., 478, 494, 496, 508, 740, 746
 Kielley, W. W., 582, 597, 602
 Kiely, B., 596
 Kier, L. B., 872
 Kierszenbaum, F., 854
 Kiger, J. A., 314
 Kihara, H., 565
 Kikuchi, G., 111
 Kikuchi, M., 585
 Kikuchi, Y., 636, 684, 892
 Kilbourne, E. C., 520
 Kim, B. S., 781
 Kim, C., 654
 Kim, C. A., 102
 Kim, H. S., 962, 963
 Kim, S., 674
 Kim, S. H., 965
 Kimball, J. P., 110, 115
 Kimball, P. C., 520
 Kimberg, D. V., 169
 Kimmelberg, H. K., 763, 764, 769
 Kimmich, G. A., 804
 Kimura, M., 597
 Kimura, S., 589
 King, E. R., 216
 King, H. K., 96
 King, J., 481, 483, 485, 486, 487, 488, 489, 490, 491, 495, 496
 King, J. A., 987
 King, R. J. B., 207, 208, 209, 210, 212, 217
 King, T. E., 57
 King, W., 721
 Kingdon, H. S., 674
 Kingsbury, D. T., 306
 Kinoshita, N., 594
 Kinsky, C. B., 767, 769
 Kinsky, S. C., 759, 766, 767, 769
 Kipfer, R. K., 194, 195, 196
 Kipnes, R. S., 194
 Kipnis, D. M., 172
 Kirk, G. R. A., 976
 Kirkman, H. N., 551
 Kirkwood, J. G., 919
 Kirschenbaum, M. B., 168
 Kirschner, D. A., 733, 737, 744
 Kirschner, I., 319
 Kirschner, R. H., 344, 345
 Kirschner, A. G., 930
 Kirshner, N., 930, 931
 Kirton, K. T., 163
 Kischa, K., 393, 398
 Kiselev, N. A., 475, 495
 Kishida, Y., 892
 Kishnan, A. R., 208
 Kishore, R., 103
 Kistenmacher, M. L., 548, 561
 Kisters, R., 682, 686
 Kit, S., 504
 Kitabchi, A. E., 189
 Kitaoka, H., 892
 Kittel, C., 938
 Kivirikko, K. I., 546, 634, 635, 636
 Kiwimae, A., 102
 Kiyasu, J. Y., 131, 134
 Kizlaitis, L. R., 163
 Klapper, M. H., 97
 Klavano, P. A., 103
 Klein, A., 301-32; 384
 Klein, D. C., 170, 171
 Klein, H. A., 382
 Klein, I., 171
 Klein, J. R., 112
 Klein, L., 546

- Klein, R., 99
 Klein, R. A., 769
 Klein, W. L., 805, 806
 Kleinig, H., 142, 143
 Kleinow, W., 348, 349, 359
 Kleinschmidt, A. K., 694
 Kleinschmidt, W. J., 517-42;
 519, 520, 523, 524, 525, 526,
 527, 528, 532, 535, 536, 537
 Kleinwächter, V., 244
 Klenk, H. D., 474, 493, 494,
 746, 747
 Kleppe, K., 311
 Klbanasky, C., 151
 Klingenberg, J. R., 547
 Kloeze, J., 171
 Klopotoski, T., 788
 Klotz, C., 31
 Klotz, I. M., 104, 527, 529,
 530, 849, 904, 910, 911, 912,
 913, 914, 915, 916
 Klug, A., 467, 468, 469, 470,
 471, 472, 473, 475, 478,
 480, 487, 495
 Knaack, J., 545, 552, 555
 Knappels, G. G., 591
 Knauer, T. E., 192
 Kneip, T. J., 114
 Knippers, R., 302, 303, 307,
 308, 310, 314, 315, 326,
 468, 477
 Knopf, P. M., 679, 690, 691
 Knott, A. R., 108
 Knowles, J. P., 57
 Knudson, A. G. Jr., 565
 Knoll, H. R., 684, 697
 Knüsel, F., 411
 Knutton, S., 755
 Kobayashi, Y., 892
 Kobylka, D., 740
 Koch, A., 797
 Koch, H. J., 968
 Koch, J., 346, 546
 Koch, J. P., 795
 Kochetkov, N. K., 970
 Kodicek, E., 180, 181
 Koekoek, R., 816
 Koenig, J. L., 873, 890
 Koeppe, D. E., 110
 Koester, J., 938
 Kofman, E. B., 106
 Koga, S., 708, 709, 722
 Kogoma, T., 323
 Köhler, H., 679
 Kohler, P. O., 214, 215,
 216
 Kohn, L. D., 631, 633
 Kohne, D. E., 341, 508, 509
 Koide, M., 95
 Koike, K., 342, 345
 Koizumi, M., 844
 Koizumi, T., 105
 Kokiwa, T., 594
 Kolakofsky, D., 383, 384
 Kolattukudy, P. E., 132
 Kolber, A. R., 326
 Kolc, J., 102
 Kolodny, E. H., 552, 555,
 696
 Kolosova, L. V., 113
 Kolthoff, I. M., 97
 Komano, T., 326
 Komatsu, S. K., 689
 Kominz, D. R., 585, 603
 Kon, H., 707, 708, 710
 Konami, Y., 981
 Kondo, H., 609
 Kondo, K., 106, 609
 Kondo, M., 415, 433
 Konev, S. V., 843
 Konings, W. N., 805, 806
 Konisky, J., 393
 Konnert, J., 964
 Kono, N., 49, 904, 910,
 911, 914
 Konrad, M., 280, 281
 Koob, L., 910, 913
 Kopin, I. J., 932, 935
 Kopple, K. D., 873, 881
 Koprowski, H., 345, 366
 Kordas, M., 937
 Korenman, S. G., 209, 210,
 213, 214, 215, 216
 Korman, M., 108
 Korn, D., 485
 Korn, E. D., 608, 609, 722,
 732, 740, 744, 754, 755
 Kornberg, A., 263, 307,
 311, 735, 746
 Kornberg, R. D., 744, 768,
 807
 Kornberg, T., 304, 307
 Kornegay, R. I., 880
 Kornfeld, R., 680, 684
 Korte, T., 735
 Kosaganov, Y. N., 260, 261,
 281
 Koshinaga, J., 102
 Koshland, D. E., 853
 Koshti, G. S., 208
 Kosmider, S., 105, 110
 Kosow, D. P., 32, 41
 Kosower, E. M., 850
 Kossman, C. R., 433,
 434
 Kossmann, S., 109
 Koster, J. F., 31
 Kostner, G., 709
 Kotelchuck, D., 882, 892
 Kothary, K., 714, 715
 Kotin, L., 240, 241
 Kotyk, A., 778
 Kourilsky, P., 411, 421,
 422
 Kovacs, A. L., 874
 Koval, G. J., 132
 Kowalski, E., 106
 Kowalski, K., 171
 Kowalski, A., 873, 904,
 908
 Kowolik, G., 978
 Koyama, E., 636
 Koyama, H., 964, 972
 Koyama, Y., 972
 Kozinski, A. W., 309,
 316
 Kozloff, L. M., 481, 487,
 488
 Krajewska-Grynkiewicz, K.,
 788
 Krakow, J. S., 278, 288,
 411, 412
 Krall, A., 110, 115
 Krall, R., 110
 Krane, S., 476
 Krane, S. M., 637, 695
 Kratky, O., 885
 Krause, G., 884, 888, 891
 Krauss, K. R., 935
 Krauss, M., 383
 Kraut, J., 816
 Kravitz, E. A., 926
 Krawciw, T., 521, 523
 Krebs, E. G., 31, 33, 49
 Krebs, H. A., 20, 57, 58
 Kreganow, F. M., 741,
 745
 Kreimer-Birnbaum, M., 112
 Kretzler, J. F., 102
 Krescheck, G. C., 886
 Krespi, V., 766
 Kresse, H., 550, 554
 Kretsinger, R. H., 635
 Kretzschmar, K. M., 607
 Krey, A. K., 246
 Krider, G., 392
 Krietsch, W. K. G., 31, 33,
 46, 48
 Krigman, M. R., 110
 Krimm, S., 488, 880
 Krinsky, N. I., 713
 Krisch, H. M., 309
 Kritchevsky, G., 142
 Krivit, W., 565, 987
 Krnjivic, K., 928, 929,
 934
 Krohn, P. M., 473
 Kroll, S. S., 108
 Kroman, R., 538
 Kromhout, R. A., 871
 Kroon, A. M., 334, 335, 336,
 337, 338, 340, 345, 347,
 348, 350, 351, 353, 354,
 356, 357, 358, 359, 365,
 366
 Kropf, E. S., 32
 Krueger, R. F., 525
 Krueger, W. C., 165, 166
 Krüntzel, H., 290
 Krupnick, D., 364
 Kruse, W., 905, 906, 907
 Kubinski, H., 286
 Kubo, S., 594
 Kubota, S., 879
 Kubly, S. A., 31, 32, 42, 44,
 46
 Kucera, J., 590
 Kuczinski, R. T., 49
 Kuehl, F. A. Jr., 171
 Kuehl, W. M., 582, 742,
 744

- Kuehnau, J., 102
 Kuehnlein, U., 449, 456, 457
 Kuempel, P. L., 307
 Kuffler, S. W., 948
 Kuhn, K., 618, 619, 621, 623, 625, 626, 627, 629, 631, 633, 662
 Kujawa, C., 354
 Kukla, D., 816, 835
 Kuksis, A., 135, 139, 140, 141
 Kulkarni, M. V., 102
 Kumar, A., 111
 Kumar, S., 411, 421
 Kumar, S. S., 152, 153, 154
 Kumasaka, F., 112
 Kummerow, F. A., 712
 Kumon, A., 49
 Kumudavalli, I., 31, 44, 45
 Kundig, F. D., 799
 Kundig, W., 735, 740, 746, 798, 799
 Kung, H. F., 60, 61, 62
 Kung, K.-H., 690
 Kuninaka, J., 426, 429
 Kuno, M., 928
 Kuntzel, H., 334, 336, 348, 349, 350, 354, 356, 357, 358, 359, 361, 420
 Kunz, F., 71
 Kunze, H., 162, 163
 Kuo, J. F., 33, 48, 49
 Kuo, S. C., 797
 Kupiecki, F. P., 33, 162, 165, 166
 Kurata, M., 876
 Kuratomi, K., 84, 85
 Kurihara, T., 732
 Kurland, C. G., 377-406; 385, 386, 387, 389, 390, 391, 392, 394, 395, 396, 397, 398, 399, 400, 401
 Kuroda, R., 102
 Kurooka, S., 31
 Kurtz, J., 890, 891, 892
 Kurucsev, T., 247, 248
 Kushner, D. J., 472
 Kushner, S. R., 308
 Kusmerick, M. J., 607
 Kuus, E., 207
 Kustin, K., 35
 Kuzy, A. R., 484, 487, 490
 Kuter, D. J., 740
 Kutty, K. M., 546, 552, 555
 Kwanbunbumpen, S., 933
 Kyriakides, E. C., 142
 Kyser, K. A., 207, 208, 210
 Kyte, J., 734, 745, 780
- L
- Labaw, L. W., 837
 L'Abbate, N., 109, 110
 Lacelle, P. L., 745
 Lachmann, P. J., 787
 Lackovic, V., 538
 Lacombe, G., 31
 Lacour, F., 342
 Ladbroke, R. D., 722, 768
 Ladd, A. C., 102
 Ladd, J. N., 85
 La Du, B. N., 545, 547
 Laemmli, U. K., 481, 483, 484, 486, 490, 491, 496
 Lagerstedt, S., 930
 Lagervall, M., 102
 Lagrue, G., 98
 Lagunas, R., 41, 43
 Lai, C. J., 363, 392
 Lal, H. T., 674
 Laico, M. T., 739
 Laiken, S. L., 265, 904, 912, 917
 Laishva, M. M., 102
 Laity, J. L. H., 163
 Lake, B. D., 547, 552, 556
 Laki, K., 585
 Lakshminarayanaiah, N., 754
 Lakshminarayanan, A. V., 255, 878
 Lalyre Yolanda, B. A., 351
 Lamarina, P., 112
 Lamb, A. J., 358, 359
 Lamb, D., 694
 Lamb, R. G., 137
 Lambeth, D. O., 736
 Lambremont, E. N., 135
 Lamola, A. A., 855, 857
 Lampidis, R., 653, 655
 Lampidis, T., 450
 Lamport, D. T. A., 640, 674, 683
 Lampson, G. P., 519, 520, 521, 522, 523, 532, 537
 Lamy, F., 794
 Lancashire, W. E., 363
 Lancaster, J. E., 978
 Lander, M. R., 512
 Landner, L., 101
 Landolt, R., 106
 Landon, M. F., 31, 45
 Lands, W. E. M., 129, 135, 136, 137, 138, 139, 141, 151, 152, 153, 163, 165, 166, 168
 Landsberger, F. R., 494
 Landy, A., 259
 Lane, J. M., 618, 619, 622, 623, 624, 626, 684
 Lang, D., 481, 874
 Langan, T. A., 252
 Langdon, R. G., 717, 718, 737
 Lange, P. M., 619, 623
 Langen, P., 978
 Langerman, N. R., 527, 529, 530
 Langley, M., 107
 Langley, T. J., 696
 Langness, U., 637
 Langridge, R., 233, 286, 524, 525, 781
 Lankisch, P. G., 151
 Lantelme, F., 857
 Lapanje, S., 875, 877
 Lapière, C. M., 631, 632
 Lapper, R. D., 243
 LaRaia, P. J., 171
 Larcom, L. L., 481, 483
 Lardy, H. A., 30, 31, 33, 34, 46, 47, 48, 105, 736
 Lark, C., 322, 455
 Lark, K. G., 302, 310, 313, 316, 317, 318, 321, 322, 323, 324, 912, 917
 LaRosa, J. C., 720, 723
 Larrabee, A. R., 874
 Larsen, E. G., 66
 Larsen, P. R., 151
 Larson, J. E., 238, 245, 286
 Larson, R. E., 607
 Larsson, A., 75
 Larsson, C., 163, 164, 165
 Larsson, S. E., 108
 Larsson-Rafniewicz, M., 31, 33, 35, 36, 42, 47
 Lascelles, J., 111
 Lascombe, J., 889
 Lash, J. W., 634
 Laskowski, M., 261
 Lasser, N., 851
 Laster, L., 547, 557, 559
 Laszlo, F., 628
 Latallo, Z., 106
 La Torre, J. L., 945, 947
 Latt, S. A., 248
 Lauer, R. M., 565
 Laufberger, M. V., 105
 Lauffer, M. A., 468, 469, 471
 Läuger, P., 759, 763
 Laumas, K. R., 207, 208
 Laurence, D. J. R., 843, 844, 851, 852, 857
 Laurie, V. W., 871
 Laver, W. G., 111, 112
 Laverne, J. M., 197
 Lavers, B., 169
 LaVia, M., 151, 152, 154
 Law, J. H., 144
 Law, P. Y., 68
 Lawrence, A. S. C., 759
 Lawrence, M. A., 735
 Laws, J. F., 31, 32, 44, 45
 Lawson, D. E. M., 180
 Layman, D. L., 631
 Layug, E. J., 687
 Layzer, R. B., 31, 32, 545
 Lazar, P., 526, 527, 533
 Lazarides, E. L., 632, 634, 635
 Lazarow, A., 675

- Lazarus, N. R., 31, 45
 Lazdunski, C., 104
 Lazdunski, M., 104
 Lazurkin, Y. S., 244, 254,
 257, 258, 259, 260, 261
 Lazzarini, R. A., 433, 434
 Lea, E. J. A., 766
 Lea, M. A., 154
 Leaback, D. H., 978
 Leach, S. J., 870, 904, 907,
 914, 920
 Leathwood, P. D., 760
 Leberman, R., 468, 469, 472,
 495
 Lebeurier, G., 473
 Leboy, P. S., 390
 Le Bras, G., 46, 47, 49
 Lechner, H., 310, 314, 315
 Ledeen, R., 979
 Leder, I. G., 796
 Leder, P., 381, 384, 398
 Lederberg, S., 449, 459
 Lederman, M., 353, 366
 Lee, B., 915
 Lee, C., 207, 210, 213
 Lee, C. P., 763, 843, 858,
 859
 Lee, C. Y., 945, 946, 947,
 982
 Lee, D. M., 716
 Lee, H. A. Jr., 63, 65
 Lee, I. Y., 859
 Lee, J. F., 732
 Lee, L. L., 740
 Lee, L.-P., 73
 Lee, L.-W., 590
 Lee, N., 31
 Lee, R., 165, 166
 Lee, S., 216
 Lee, S. G., 350, 352
 Lee, S. W., 180
 Lee, S. Y., 560
 Lee, Y. C., 674, 680, 684,
 696
 Leeden, R., 677
 Leeds, E. B., 114
 Lees, C. W., 249, 905, 914,
 917, 918
 Lees, M., 737
 Lees, R. S., 546, 717, 719,
 720, 721
 Leete, E., 975
 Lefevre, P. A., 102
 Leffler, A. T. II, 337, 338,
 339
 Lege, L., 151
 LeGette, J., 627
 Legrand, M., 879
 Lehman, G. W., 892
 Lehman, I. R., 261, 316,
 338
 Lehman, W., 582, 589
 Lehmann, H., 543, 551
 Lehmyer, J. E., 188, 171
 Lehnert, G., 108
 Lehninger, A. L., 766, 767,
 784
 Lehrach, H., 413
 Lehrer, R. L., 171, 547
 Lehrer, S. S., 266
 Leibovitz, Z., 153
 Leibowitz, J. R. D., 366
 Leichling, B. H., 904, 910,
 911, 913
 Leigh, J. S., 33, 45
 Leighton, T. J., 435, 437
 Leive, L., 793
 Le Kim, D., 132, 133, 134
 Leloir, L. F., 954
 Lelong, J. C., 382, 383,
 384, 398, 402, 403
 Lemahieu, M. A., 204, 205,
 206, 222
 Lembach, K., 426, 429
 Lemieux, B., 563
 Lemieux, R. U., 953, 967
 Lemke, P. A., 520
 Lenaers, A., 631, 632
 Lenard, J., 494, 740
 Lenaz, G., 739
 Leng, M., 247, 249, 250,
 251, 252, 255
 Lenglere, J., 779, 796,
 802
 Lengyel, P., 384
 Lennarz, W. J., 129, 144,
 147, 151, 152, 153, 767
 Lennox, E. S., 679, 690,
 691, 940
 Lenormant, H., 904
 Lent, R. W., 618, 640, 653,
 654, 655, 656, 674
 Lenz, G. R., 103
 Leonard, B. J., 538
 Leonard, D. L., 110,
 115
 Leonard, N. J., 860
 LePecq, J.-B., 244, 245,
 335, 855
 Lerman, L. S., 244, 251,
 485, 524, 855
 Leroy, J., 552, 556
 Lerud, R. F., 56
 Lesbats, B., 935
 Leslie, R. B., 707, 708,
 710, 715, 725
 Lesnik, E. A., 907
 Lester, H. A., 945
 Lester, R., 760, 771
 Letters, R., 154
 Leung, J. G.-M., 881
 Leuzinger, W., 735
 Lev, A. A., 766
 Leveille, G. A., 32
 Levene, C. I., 654
 Levenson, S. M., 618
 Lever, J., 788, 789, 802
 Levey, G. S., 171
 Levi, A. J., 545, 548,
 564
 Levi, M. M., 651
 Levin, B., 545, 546, 548,
 550
 Levin, E. Y., 547
 Levine, A., 319, 507
 Levine, A. J., 347, 507
 Levine, A. S., 508
 Levine, L., 163, 261
 Levine, M., 327, 480, 483,
 735, 816, 829
 Levine, M. J., 693
 Levine, R. A., 171
 Levine, S., 533, 534
 Levine, S. S., 258
 Levine, Y. K., 755
 Levinthal, C., 106, 433, 481,
 485
 Levison, S. A., 35, 854
 Levitt, M., 872, 873,
 878
 Levy, G. A., 684
 Levy, H. B., 533, 534, 537,
 538
 Levy, H. L., 59, 60, 557,
 558
 Levy, H. M., 588
 Lévy, M., 142, 145, 146
 Levy, R. I., 103, 546, 549,
 706, 712, 714, 715, 716,
 717, 719, 720, 721, 722,
 723
 Levy, R. S., 716, 717
 Lewander, T., 102
 Lewin, S., 236
 Lewis, A. F., 972
 Lewis, A. M. Jr., 506,
 507
 Lewis, G. M., 545
 Lewis, G. P., 167, 168
 Lewis, L. A., 708, 722
 Lewis, M. S., 618, 619
 Lewis, P. N., 882, 892
 Lewis, R. J., 193, 194
 Lewis, U. J., 520
 Lezius, A. G., 83
 Lhoas, P., 520
 Li, C. H., 676
 Li, H. J., 244, 245, 253,
 254
 Li, L. F., 194, 195, 196
 Li, N. C., 98, 103
 Li, S.-C., 987
 Li, S. L., 826
 Li, Y.-T., 987
 Liang, M., 784, 792
 Liang, T., 223
 Liao, S., 204, 223
 Liao, T. H., 676, 677
 Liberman, E. A., 766
 Libonati, M., 436
 Lichtman, H. C., 112
 Lickfield, K., 932
 Lieb, M., 275
 Lieberman, S., 209
 Liehl, E., 880
 Lielzusis, I., 481, 483, 484,
 486, 488, 489, 490, 495
 Liem, R. K. H., 884
 Lien, E. L., 68
 Lietti, A., 171
 Llew, C. C., 674

- Lifson, S., 241, 870, 872,
 873, 875, 878, 882, 883,
 884, 886, 887, 888, 889,
 891, 892
 Liggins, G. C., 162
 Lightbody, J., 553, 556
 Lignowski, S. J., 889
 Liler, M., 889
 Liley, A. W., 928, 929
 Lilius, H., 112, 114
 Lill, A., 412, 424
 Lill, H., 412, 424
 Lilljeqvist, A.-C., 59, 547,
 557, 558
 Lim, C.-T., 709, 723
 Limbrick, A. R., 755
 Limonta, A., 102
 Lin, E. C. C., 778, 779,
 795
 Lin, G. H.-Y., 964
 Lin, S.-Y., 267, 268
 Lin, Y., 681
 Lincoln, F., 161, 162
 Lincoln, F. H., 162
 Lindahl, G., 315, 320, 420
 Lindahl, P. E., 102
 Lindahl, U., 674, 723
 Lindberg, U., 509
 Lindblad, B., 637
 Lindblow, C., 880
 Lindell, T. J., 31
 Lindenmann, J., 534
 Linderström-Lang, K., 904,
 910, 911, 912, 917, 918,
 919
 Lindgren, F. T., 705, 706,
 713, 714, 718, 720
 Lindhard, J., 11
 Lindquist, B. H., 420, 421,
 477
 Lindsay, H. L., 538
 Lindsog, S., 106
 Lindsley, H., 625, 627
 Lindstedt, G., 637
 Lindstedt, S., 637
 Lindsten, J., 99
 Lindstrand, K., 100
 Lindstrom, J., 940
 Lineback, D. R., 953
 Ling, C. M., 473
 Link, K. P., 190, 193, 194
 Linm, S., 261, 448, 449, 452,
 454, 456
 Linnane, A. W., 334, 348,
 350, 358, 359, 360, 361,
 362, 364, 365
 Linney, E. A., 315
 Lipkan, G. N., 106
 Lipmann, F., 5, 13, 16, 31,
 49, 348, 378, 380, 381,
 431
 Lippert, E., 844
 Lippincott, E. R., 871
 Lipschutz, F., 112, 114,
 115
 Lipscomb, W. N., 97, 816,
 817, 838
 Lipson, L. C., 169, 170
 Liquori, A. M., 870, 871,
 874, 878
 Lishajko, F., 932
 Lisk, R. D., 207, 216
 Lisowska, E., 675
 Listowsky, I., 983
 Littauer, U. Z., 310, 348,
 414
 Little, J. W., 108
 Littledike, E. T., 172,
 180
 Littlefield, J. W., 560, 561,
 568
 Litwack, G., 31
 Liu, K.-J., 889
 Livett, B. G., 926, 929,
 932
 Livingston, P. O., 108
 Livingstone, M. J., 506
 Lizardi, P. M., 350
 Ljungdahl, L., 83, 84,
 101
 Lloyd, K. O., 686, 687,
 692
 Lloyd, W. J., 977
 Lochinger, W., 980
 Lockart, R. Z. Jr., 522,
 528, 530, 532, 533, 534
 Locke, L. N., 102
 Locker, R. H., 579, 580,
 581
 Lockett, M. F., 162
 Lockwood, A. H., 278, 289,
 414, 418, 419
 Lodemann, E., 521
 Lodish, H. F., 383
 Loeb, P. M., 559
 Loeliger, E. A., 197
 Loewenstein, A., 904, 909,
 910
 Logan, M. A., 627
 Loh, P., 474
 Löhr, G. W., 31, 546
 Loken, M. R., 848
 Loken, S. C., 171
 Lomtevas, N., 559
 Lonberg-Holm, K., 475
 London, I. M., 112
 London, Y., 151
 Long, R. A., 972
 Longenecker, H. E., 933
 Longland, R. C., 193
 Longley, W., 468, 472, 495,
 585, 590, 593
 Longworth, R., 880
 Lonigro, A. J., 162, 163,
 169
 Lonsdale, D., 545
 Lontie, R., 105
 Looney, F. D., 72, 73
 Loos, L. J., 326
 Lopatin, D. E., 854
 Lorensen, M. Y., 49
 Lorente Albinana, R., 99
 Lorenzi, G. P., 636
 Los, M., 163
 Losick, R., 277
 Losito, R., 193, 197
 Lossow, W. J., 718
 Lo Storto, A., 109, 110
 Lotan, N., 869-902; 880,
 884, 885, 886, 887, 888,
 889, 890, 892
 Lote, C. J., 673, 674, 676
 Louarn, J., 317
 Loughlin, R. E., 75
 Love, B., 736
 Love, D. L., 545
 Love, W. E., 816, 826
 Lovenberg, W., 816, 833,
 834
 Loviny, T., 47, 49
 Löw, H., 170
 Lowden, J. A., 552, 556,
 732
 Lowe, A. G., 745
 Lowe, I. P., 171
 Lowe, J. N., 60
 Lowe, J. P., 871
 Lowenstein, J. M., 30, 40
 Lowenthal, A., 545
 Lowenthal, J., 190, 195, 196,
 197
 Lowey, S., 579, 580, 581,
 590, 592, 601
 Lowry, C. V., 383, 386, 387,
 389, 391, 396, 399, 401,
 433
 Lowy, D. R., 512
 Lowy, J., 590
 Lowy, P. H., 690
 Loxsöm, F. M., 879
 Lu, D. S., 243
 Lubin, M., 781, 784, 786
 Lubochinsky, B., 781
 Luborsky, S. W., 337, 338,
 339
 Lucas, F., 640, 683, 690
 Lucas, Z. J., 307
 Lucas-Lenard, J., 378, 380,
 381
 Lucchini, G., 351
 Lucier, G. W., 99
 Lucis, O. J., 108
 Lucis, R., 108
 Luck, D. J. L., 339, 350,
 357, 362, 364
 Luck, G., 98
 Lucy, J. A., 154, 169, 185,
 767, 771
 Ludescher, U., 873, 878
 Ludwig, G. D., 359
 Luftig, R. G., 481, 483, 485,
 486, 490
 Luha, A. A., 360, 361,
 365
 Luhnby, A. L., 57
 Lui, N. S. T., 45
 Luk, C. K., 857
 Lukacs, M., 188
 Luke, C. G., 692
 Lukens, L. N., 632, 634,
 635

- Lukins, H. B., 350, 362, 364, 365
 Lumb, G. A., 180
 Lundgren, K. D., 103
 Lunt, G. S., 945, 947
 Lupo, M., 793
 Luque, J., 822
 Luria, S. E., 448
 Lurie, D., 142
 Luscher, E. F., 744
 Luse, S. A., 767
 Lustberg, T. J., 545, 550, 559
 Lusty, C. J., 582, 583, 597
 Lute, M., 481, 487, 488
 Lutomska, K., 98
 Lutter, L., 385, 390, 398, 399
 Lutz, P., 980
 Lux, S. E., 712, 723
 Luzzati, D., 411, 421, 422
 Luzzati, V., 237, 755, 857, 873, 885
 Luzzatto, L., 383, 402
 Lybyer, M. J., 989
 Lyle, W. H., 108
 Lyman, R. L., 141, 142, 146
 Lynn, R. W., 594, 601
 Lynk, M. E., 108
 Lyon, M. F., 568
 Lyon, W. S., 94
 Lyons, J. W., 240
- M
- Maaløe, O., 322
 Maas, W. K., 784, 791
 Maass, G., 905, 906
 Mabry, T. J., 972
 MacBrinn, M. C., 552, 554, 555
 Macdam, R. F., 110, 115
 MacDonald, G., 142
 MacFarlane, J. A., 197
 MacFarlane, R. B., 102
 MacGillivray, M., 536
 Mach, O., 367
 Machado, A. L., 16
 MacHattie, L. A., 237, 319, 418, 419, 480, 481
 Maciel, G. E., 35
 MacIntosh, F. C., 934, 935
 Mackel, S., 545, 554
 MacKenzie, J. M., 476
 Mackenzie, S., 557
 Mackie, W., 691
 MacLennan, D. H., 605, 732, 734, 736, 739, 745, 746, 747
 MacLeod, R. A., 786, 805
 MacLeod, R. M., 168, 171
 MacManus, J. P., 168, 171
 Maden, B. E., 381, 402
 Madison, V., 874, 879, 880
- Madoff, M. A., 743, 744
 Maeba, P., 34
 Maeda, K., 976
 Mäenpää, P. H., 674
 Maestre, M. F., 524
 Magasanik, B., 431, 433, 976
 Magazin, M., 318, 319
 Magee, W. L., 129-60; 149, 150, 151
 Mager, J., 149, 151
 Magerlein, B. J., 975
 Maggs, F. A. P., 767
 Maglott, D., 390
 Magos, L., 102
 Mahadik, S. P., 414
 Mahajan, K. P., 977
 Maher, J. P., 100
 Mahesh, V. B., 207
 Mahler, H. R., 247, 358, 359, 360, 364, 366, 368
 Mahoney, C. P., 564
 Mahoney, M. J., 59, 60, 83, 547, 548, 557, 558
 Mahowald, T. A., 31, 32, 44, 46
 Mahr, T. G., 880, 881
 Maia, J. C., 436
 Malignet, B., 870, 872, 873, 878
 Mainwaring, W. I. P., 223
 Maio, J. J., 334, 338
 Maitra, U., 278, 280, 283, 287, 289, 290, 414, 418, 419
 Maity, B. R., 795
 Maizel, J. V. Jr., 474, 475, 476, 478, 479, 496, 740
 Majerus, P. W., 546, 674, 745
 Majors, P. F., 108
 Majumder, G. C., 49
 Makashev, K. K., 109, 110
 Maki, M., 392
 Mäkinen, K. K., 110
 Makinose, M., 605, 606, 783
 Makman, R. S., 431
 Makover, S., 317
 Makula, A. F., 848
 Malamed, S., 931
 Malamud, N., 562
 Malamy, M. H., 783
 Maldonado, N., 546
 Malek, P., 102
 Maley, F., 680, 684, 686
 Maley, L. E., 103
 Malik, M. N., 598
 Malins, D. C., 131, 132
 Malishevskaya, A. S., 102
 Malkin, L. I., 348
 Mallette, M. F., 975
 Malling, H. V., 99
 Malmstrom, B. G., 97, 105
- Malone, B., 130, 131, 132, 133, 134
 Manaranche, R., 935
 Mandel, M., 247, 910, 917
 Mandelkern, L., 870, 874, 875, 876, 879, 890, 892
 Mandelstam, J., 431
 Mandersloot, J. G., 769, 770
 Mandl, L., 651
 Manev, E. D., 759
 Manganiello, V., 172
 Mangnall, D., 144
 Mangold, H. K., 131
 Mangum, J. H., 76, 78, 79, 100
 Maniatis, T. P., 251
 Mann, D. L., 693, 734, 745
 Mann, T., 92
 Manner, G., 635
 Mannik, M., 625, 627
 Manning, G. B., 564
 Manning, J. E., 337, 347
 Manning, J. M., 635
 Manning, R. A., 103
 Manor, H., 310
 Mansour, A. M., 355
 Mansour, T. E., 31, 38, 46, 49
 Manville, J. F., 969, 970
 Mapes, C. A., 565, 987
 Maragoudakis, M. E., 57
 Marai, L., 135
 Marcaud, L., 411, 421
 March, J. B., 732
 Marchal, E., 873
 Marchbanks, R. M., 935
 Marchesi, S. L., 734, 740
 Marchesi, V. T., 734, 740, 741, 742, 744
 Marchessault, R. H., 959
 Marchioro, T. L., 564
 Marcher, K. A., 346, 366, 384
 Marcus, D. M., 976
 Marcus, M., 792, 793
 Marcus, P. I., 534, 535
 Margolash, E., 736
 Margolis, R. U., 675
 Margolis, S., 704, 713, 717, 718, 737
 Margoshes, M., 104
 Margulies, L., 436
 Margulis, L., 367
 Marin, G., 504, 505
 Maring, E., 605
 Marino, P., 411
 Marinozzi, V., 186
 Mark, H., 873
 Mark, J. E., 880
 Mark, K. V. D., 618, 621, 625, 627
 Markley, J. L., 881
 Markovich, D. S., 97
 Marks, G. S., 684

- Marks, J. F., 568
 Marks, P. A., 550
 Marlborough, D. I., 884
 Marler, E., 682
 Marmur, J., 243, 256, 347, 364, 365
 Maroteaux, P., 565
 Maroudas, N. G., 360, 364
 Marquis, N. R., 171
 Marquis, R. E., 785, 786
 Marr, A. M. S., 689, 694
 Marr, J., 40
 Marsden, J. C., 694
 Marsh, J. M., 171
 Marsh, M., 921
 Marsh, R. C., 316, 318
 Marsh, R. E., 962, 964
 Marshall, G. E., 962
 Marshall, L. W., 528, 529, 530
 Marshall, M., 43
 Marshall, R. D., 673-702; 674, 675, 676, 677, 679, 683, 684, 688, 689, 690, 696, 697, 954
 Marshall, T. H., 910
 Marston, S., 603
 Martell, A. E., 95, 103
 Martelo, O. J., 413
 Martin, A. P., 144
 Martin, A. R., 928, 934
 Martin, D. Jr., 531
 Martin, E. M., 534, 535
 Martin, G. J., 92
 Martin, G. R., 624, 625, 631, 632, 653, 654, 662
 Martin, G. S., 512
 Martin, L., 207
 Martin, M. A., 508, 509, 512
 Martin, R. G., 504
 Martin, S. S., 690
 Martin, W. G., 724
 Martinez, A. M., 278
 Martinovic, J., 197
 Martius, C., 194
 Martonosi, A., 596, 598, 604, 605, 745, 746, 783, 857
 Marty, L., 474, 475, 507
 Martz, R. C., 108
 Maruo, B., 326
 Maruyama, K., 584, 585, 589, 590, 603
 Marvin, D. A., 236, 315, 325, 416, 468
 Marx, J., 209
 Masaki, T., 589, 591, 593, 594
 Masamune, H., 687
 Masamune, Y., 309
 Mascarinas, T., 565
 Maslova, R. N., 907
 Mason, D. J., 975
 Mason, K. E., 183, 185
 Mason, R. J., 171
 Mason, W. S., 481, 488
 Masoro, E. J., 606
 Masouredis, S. P., 744
 Massey, V., 109
 Massol, N., 212
 Masters, B. S. S., 735
 Masters, M., 316, 317
 Masuda, Y., 870
 Mataga, N., 844
 Matalon, R., 546, 552, 555, 561
 Matchett, W. H., 791, 794
 Mateini, M., 112, 115
 Mateu, L., 714, 726
 Mathews, C. K., 480, 481, 487, 488, 496
 Mathews, E., 480, 483, 484, 486
 Mathews, F. S., 735, 816, 829
 Mathews, M. B., 686
 Matschiner, J. T., 191, 192, 195
 Matschinsky, F. M., 163
 Matsuda, K., 162
 Matsukage, A., 280, 281, 287
 Matsuo, K., 249
 Matsushima, Y., 680
 Matsushita, H., 102, 105
 Matsushita, S., 111
 Matsushita, T., 302
 Matsuya, Y., 504
 Mattern, C. F. T., 468, 472
 Matthews, B. W., 816
 Matthews, J., 168
 Mattice, W. L., 874, 875, 876
 Mattick, L. R., 982
 Matti, R., 194
 Mattsson, K., 545, 552
 Matukas, V. J., 618, 627
 Matula, T. I., 786, 805
 Maturo, L., 108
 Matz, M. J., 319
 Mauel, C., 905, 918, 921
 Mauldin, J., 714
 Maunsbach, A. B., 163, 164, 165
 Maurer, H. R., 208, 209
 Mauro, A., 933
 Mautner, H. G., 940
 Mauzerall, D., 112
 Mavis, R. D., 138
 Mawer, E. B., 180
 Maxfield, J. E., 912, 917
 Maxwell, L. C., 113
 May, B., 171
 May, H. E., 189
 May, P. B., 110
 Mayer, A., 319, 507
 Mayer, G. D., 525
 Mayer, H. E., 680
 Mayer, R. T., 851
 Mayer, S. E., 48
 Mayo, J. W., 981
 Mayo, V. S., 348
 Mayol, R. F., 206, 222, 476, 477
 Mayor, D., 932
 Mayor, H. D., 478
 Mazaitis, A. J., 427
 Mazia, D., 739
 Mazliak, P., 146
 Mazzarella, L., 874
 Mazzocchi, P. H., 873
 McAllister, H. Y., 108
 McArthur, C. L. III, 563
 McAuslan, B., 59
 McAuslan, B. R., 493
 McBride, B. C., 81, 82, 83, 84
 McBride, O. W., 916
 McCallum, M., 341
 McCann, S., 221
 McCann, S. M., 171
 McCarter, J. A., 855
 McCarthy, B. J., 205, 368
 McCarthy, J. R., 974
 McCay, P. B., 189
 McClelland, L., 520
 McCluer, R. H., 353, 354
 McClure, F. T., 786
 McClure, W. O., 843, 844, 847, 850, 851, 853
 McClure, W. R., 39
 McCombs, R. M., 474
 McConathy, W. J., 723
 McConn, J. D., 106
 McConnell, B., 235, 245, 254, 256, 904, 910, 917, 920
 McConnell, D. G., 732
 McConnell, H. M., 597, 598, 744, 768, 807
 McCormick, E. C., 713
 McCreary, M. B., 521
 McCullough, J. R., 561
 McCurdy, P. R., 551
 McDonald, C. C., 904
 McDonald, J. A., 549, 551
 McDonald, J. H., 114
 McDonald, R., 760, 766
 McDonald-Gibson, W., 168, 170
 McDougall, B. M., 75
 McDowell, M. J., 474
 McElhaney, R. N., 153, 769
 McEntee, K., 598
 McFall, E., 431
 McFarland, B. H., 605
 McFarland, V., 337, 338
 McFarland, W. W., 513
 McGarrity, W. J., 110
 McGarry, J. D., 96
 McGavin, S., 873, 874
 McGee, J. O'D., 636, 637, 682, 684

- McGhee, J. D., 231-300; 259, 281
 McGiff, J. C., 162, 163, 169
 McGivan, J. D., 766
 McGoodwin, E. B., 631, 632
 McGrath, J., 290, 412, 419, 420, 421, 425
 McGuire, J. L., 207
 McGuire, R. F., 872
 McGuire, W. L., 207, 209, 214, 215, 216, 217, 218
 McIntosh, J. R., 739
 McKean, C. M., 562
 McKeenan, W., 531
 McKneally, S. S., 737
 McKusick, V. A., 543, 547, 548, 552, 553
 McLaughlin, C. S., 378, 400
 McLellan, W. L. Jr., 796
 McMahon, J. P., 722
 McMaster, V., 186, 187
 McMurray, C. H., 97, 983, 989
 McMurray, W. C., 129-60; 129, 145, 146, 147
 McPhail, A. T., 962
 McPhee, J. R., 97
 McPhie, P., 396
 McQuarrie, D. A., 892
 McRae, T. P., 892
 McSharry, J. J., 494
 McTague, J. P., 892
 Mead, J. F., 154
 Meade, J. C., 549
 Meadows, D. H., 881
 Meagher, P., 359, 736
 Means, A. R., 204
 Mecca, C. E., 654
 Mechanic, G., 653, 654, 655, 656, 657
 Medakovic, B., 109
 Mednis, B., 473
 Medveczky, N., 782, 802
 Meezan, E., 481, 487, 496
 Mehrotra, B. D., 247, 358, 359, 360, 364
 Meiboom, S., 904, 909, 910
 Meigel, W., 627
 Meineke, B., 102
 Melster, A., 635, 878
 Mela, L., 859
 Melancon, S. B., 560
 Melchers, F., 679, 690, 691
 Melchior, D. L., 769
 Melchior, J. B., 36
 Meldolesi, J., 142, 143
 Meldrum, B. S., 151
 Mellin, G., 112, 114
 Mellman, W. J., 545, 547, 548, 549, 551, 561
 Mellor, D. P., 103
 Melmon, K. L., 171
 Melnick, J. L., 474
 Mench, M. L., 204
 Mendicino, J., 978
 Menkes, J. H., 562, 563
 Menninger, J. R., 381
 Merigan, T. C., 521, 522, 523, 524, 525, 527, 528, 530, 534, 538
 Merikatz, I. R., 562
 Merlino, N. S., 170
 Meronk, F. Jr., 439
 Merriam, V., 314
 Merrill, C. R., 566
 Merritt, A. D., 691, 693
 Merti, F., 108
 Meselson, M., 447-66; 383, 388, 390, 402, 449, 450, 453, 454, 455
 Messer, W., 302, 318, 325
 Messina, A. M., 561
 Mester, J., 210, 213
 Metsälä, P., 113
 Metter, E. J., 481, 487
 Metz, J., 80
 Meunier, J.-C., 940, 944, 947
 Meury, J., 781
 Meyer, A. J., 746
 Meyer, F., 413
 Meyer, K. H., 873
 Meyer, R. R., 346
 Meyer, W. E., 978
 Meyer, Y. P., 880
 Meyerhof, O., 12, 16
 Meyers, J. T., 103
 Miall, S. H., 382, 396
 Michael, R. P., 207
 Michaeli, D., 625
 Michaeli, I., 249
 Michaelis, G., 354, 364, 365
 Michaelis, L., 105
 Michaësson, G., 168
 Michelakis, A. M., 114
 Micheli, H., 171
 Michelson, A. M., 255, 378, 400, 855
 Middleton, H. W., 605
 Middleton, P. A., 214, 215
 Midgett, R. J., 180
 Midgley, J. E. M., 387
 Mielech, R. P., 43
 Miettinen, J. K., 103
 Migeon, B. R., 568, 987
 Migne, J., 190
 Miki-Nomura, T., 609
 Mikkelsen, K., 904, 910
 Mikulski, A. J., 261
 Milanesi, G., 426, 427
 Milcarek, C., 308
 Mildvan, A. S., 33, 35, 42, 47, 48, 843
 Miledi, R., 928, 934, 946, 947, 948
 Miles, B. J., 31, 32, 44
 Miles, P. M., 692
 Miles, R. J., 977
 Milevskaya, I. S., 880
 Milgrom, E., 215, 217, 218, 219
 Milhorat, A. T., 188
 Milikova, A. N., 106
 Millar, G. J., 191, 192
 Millar, J. A., 112, 115
 Millar, J. S., 762
 Millay, R. H., 152, 153, 154
 Millen, W. A., 43
 Miller, D. L., 35, 380
 Miller, D. R., 49
 Miller, E. J., 618, 619, 622, 623, 624, 625, 626, 627, 628, 630, 638, 653, 654, 684
 Miller, G. R., 873
 Miller, H., 879, 890
 Miller, I. R., 107
 Miller, J., 563
 Miller, J. H., 265, 270, 410, 439
 Miller, K. W., 769
 Miller, L. L., 194, 196
 Miller, M. A., 873
 Miller, M. J., 383, 384
 Miller, N., 755, 763
 Miller, O. L. Jr., 438
 Miller, P. L., 334
 Miller, R. J., 110
 Miller, R. L., 632, 634, 635
 Miller, V. L., 102, 103
 Miller, W. G., 873, 875, 876, 877, 882, 883, 885, 886, 892
 Miller, W. J., 108
 Miller, W. W., 60, 63, 65
 Millette, R. L., 289, 414, 418, 419
 Millington, P. F., 755
 Millionova, M. I., 892
 Mills, A. J. T., 349
 Millonig, G., 186
 Mills, H. H., 958
 Millward, G. R., 585
 Milman, G., 382, 525
 Milner, L., 80, 805
 Milner-White, E. J., 45
 Milstein, C., 676, 677
 Milstien, J. B., 468, 873, 884
 Milunsky, A., 559, 560
 Minari, O., 145
 Mindich, L., 806, 807
 Miner, N., 535
 Minigawa, T., 480, 483, 485
 Mink, I., 194
 Minkley, E. G., 418, 419
 Minnich, V., 546

- Minot, A. S., 113
 Minyat, E. E., 855
 Mitchell, C. H., 350, 352
 Mitchell, H. K., 684
 Mitchell, J. F., 929
 Mitchell, M. P., 139, 145
 Mitchell, P., 805
 Mitchener, M., 114
 Mitra, R. S., 345, 348, 353
 Mitsui, Y., 286
 Miura, K., 335, 336
 Miwa, I., 984
 Miyai, K., 685
 Miyajima, N., 690
 Miyajima, R., 31, 43, 49
 Miyakawa, K., 98
 Miyama, T., 102
 Miyamoto, E., 33, 49
 Miyamoto, T., 511
 Miyamoto, V. K., 755
 Miyatake, T., 987
 Miyazawa, F., 392
 Miyazawa, T., 873, 889, 904
 Mizuno, S., 326, 411
 Mizushima, S., 378, 386, 387, 389, 391, 396, 399, 400, 401
 Mizutani, S., 511
 Moczar, E., 640, 688
 Moczar, M., 688
 Moe, P. G., 59, 60, 80
 Moellmann, H., 102
 Moerman, E. J., 932
 Moffatt, J. G., 978
 Mohla, S., 212, 214, 221, 222, 223
 Mohler, D. N., 546
 Moisy, M., 98
 Mokranjac, M., 109, 110, 113
 Mölbert, E., 481, 484
 Molday, R. S., 904, 906, 908, 910, 911, 912, 913, 914, 915, 916
 Mole, R., 112, 115
 Molenaar, I., 185, 186
 Molineux, I., 311
 Molinoff, P. B., 926, 946, 947
 Moll, G., 594
 Möller, W., 387, 393, 397, 398, 400
 Molnar, J., 691
 Molyneux, M. K. B., 102
 Momany, F. A., 870, 872, 873, 874, 878
 Momii, R. K., 879
 Mommaerts, W. F. H. M., 589, 594, 603
 Moncada, S., 168
 Monter, R., 387, 396
 Monk, C. B., 103
 Monnens, L. A. H., 545
 Monnerie, L., 860
 Monod, J., 264, 269, 411, 431, 432, 526, 778, 779, 795, 796, 937
 Monroe, R. E., 381, 390, 402
 Monroe, D., 654
 Monsey, J. B., 693, 694
 Monsigny, M., 679
 Montagnier, L., 510, 520, 521
 Montell, R., 190
 Monteleone, J. A., 545
 Monteleone, P. L., 545
 Montenecourt, B. S., 348
 Montfort, A., 135
 Montgomery, R., 680, 684
 Montpetit, V. J., 547, 558
 Montreuil, J., 679
 Montroll, E. W., 892
 Monty, K., 781
 Moody, M. F., 480, 487, 488, 489
 Mookerjee, S., 142
 Moore, C. L., 32, 33, 45
 Moore, C. V., 112
 Moore, H., 113
 Moore, H. W., 184
 Moore, J. F., 110
 Moore, M. J., 769
 Moore, M. R., 115
 Moore, P. B., 385, 392, 593, 609
 Moos, C., 584, 600, 601
 Mooseker, M., 609, 744
 Mora, G., 386, 397, 398, 399
 Mora, J., 785
 Mora, P. T., 337, 338, 339, 513
 Morahan, P. S., 533
 Morales, M. F., 35, 38, 589, 596, 597, 598, 599, 858
 Morawetz, H. D., 915
 Morawiecki, 734, 742, 748
 Morawska, K., 162, 163, 165
 Mordoh, J., 323
 Morecki, R., 732
 Moreland, B. H., 31, 44
 Morell, A. G., 688, 689
 Morell, H., 112
 Morel-Maroger, A., 115
 Moreno, G., 110, 113
 Morfin, R., 705
 Morgan, A. R., 286, 289, 290, 306
 Morgan, C., 473, 493, 494
 Morgan, E. H., 112, 690
 Morgan, J. M., 108
 Morgan, M. S., 204, 205
 Morgan, O. S., 692
 Morgan, P. H., 626, 640, 676, 677
 Morgan, R., 102
 Morgan, T. E., 734
 Morgantini, L. E., 520
 Morimoto, H., 348, 349
 Morimura, H., 31, 32, 46
 Morita, F., 597
 Morita, K., 892
 Morikawa, Y., 65
 Morley, C. G. D., 71, 74
 Morokuma, K., 873
 Morowitz, H. J., 769, 807
 Morpurgo, G., 364, 365
 Morré, D. J., 142, 143
 Morris, H. P., 175
 Morris, H. R., 180
 Morris, N. R., 293
 Morrison, D. C., 807
 Morrison, J. F., 29-54; 30, 33, 36, 37, 38, 39, 40, 42, 43, 47, 48
 Morrison, M., 740, 741, 742, 743, 744
 Morrow, G. III, 59, 545, 546, 557, 558, 562
 Morrow, J. J., 112
 Morrow, M. P., 688
 Morrow, R. I., 208
 Morse, D., 426
 Morse, M. L., 794, 799
 Mortlock, R. P., 988
 Morton, G. O., 978
 Morton, J. D., 108
 Mosbach, E. H., 493
 Moscarello, M. A., 732, 735, 737, 743, 747
 Moser, H. W., 545, 552, 556, 562
 Moses, H. L., 109, 110, 741, 745
 Moses, R. E., 302
 Mosig, G., 310, 318, 319, 480, 484, 487
 Moskowitz, J., 171
 Mossman, D. B., 109
 Moszynski, B., 115
 Mota, A. M., 604
 Motulsky, A. G., 545, 549
 Moulton, W. G., 871
 Mounolou, J. C., 347
 Mountcastle, W. E., 474, 738, 746
 Mourad, N., 31, 40, 42, 46, 48
 Mousseron-Canet, M., 209, 222
 Moustacchi, E., 346
 Moyed, H. S., 487
 Mrena, E., 763
 Mudd, J. B., 137, 140
 Mudd, S. H., 59, 60, 80, 83, 545, 557, 558, 559, 560

- Mudge, G. H., 103
 Mueller, D. D., 904, 912, 914, 915
 Mueller, G. C., 204, 205, 206, 208, 213, 222
 Mueller, H., 586, 587, 594
 Mueller, K., 280, 283, 284, 285, 286, 287
 Mueller, P., 754, 758, 766, 769
 Muesing, R. A., 707, 716
 Mühlrad, A., 583, 598
 Muir, H., 553, 675, 682, 683
 Mulhern, S., 983, 984
 Muller, A. D., 197
 Müller, H., 547
 Müller, J., 132, 133, 134
 Müller, M., 982, 985
 Müller, P., 629, 631, 632
 Müller, W., 245, 246
 Muller-Eberhard, U., 689
 Müller-Hill, B., 264, 265, 266, 269, 270, 411, 431, 432, 941
 Müller-Wecker, H., 314
 Mullinax, F., 695
 Mullinax, G. L., 695
 Multani, J. S., 692, 693
 Mulvihill, J. E., 108
 Mumma, R. O., 975
 Mumma, S., 481, 483
 Münch, M., 619, 623
 Munk, A., 223
 Munday, K. A., 977
 Munder, P. G., 153
 Munkres, K. D., 364
 Munn, E. A., 767
 Munns, A. R. I., 964
 Munoz, E., 735, 740
 Munoz, V., 710, 711
 Munro, G. F., 49
 Munson, P. L., 168, 172
 Munyon, W., 535
 Murachi, T., 680
 Murad, F., 171, 172
 Murakami, M., 102
 Murakami, S., 280, 281, 287, 326
 Murakami, W. T., 513
 Muramatsu, T., 693
 Murayama, W., 964
 Murchio, J. C., 718
 Muriado, H., 479, 489, 491
 Muro, L. A., 111
 Murooka, Y., 131
 Murphy, A. J., 597, 605
 Murphy, E. B., 519, 520, 523, 524, 525, 526, 527, 535, 536, 537
 Murphy, F. A., 527, 528, 529, 530, 532
 Murphy, S., 59
 Murray, G. R. J., 97
 Murray, K., 252, 449, 457
 Murray, R., 983, 984
 Murty, C. N., 691
 Murty, H. S., 187, 188
 Murty, V. L. N., 681, 691
 Murugesan, K., 208
 Museles, M., 545, 550
 Mushynski, W. E., 286
 Musliner, T. A., 211, 212, 220, 221
 Mustafa, M. G., 107
 Mützel, W., 207
 Myers, G. L., 265, 269
 Myers, M. A., 108
 Myrbäck, K., 30, 33, 34, 47, 48, 106
 Myrtle, J. F., 180

 N
 Nachbaur, J., 145, 151, 154
 Nachmansohn, D., 1-28; 5, 14, 16, 17, 18, 19, 24
 Nachmias, V. T., 609, 610
 Nadler, H. L., 545, 549, 552, 554, 559, 560, 561, 568
 Nafie, L. A., 873
 Nagai, K., 873, 882, 883, 885
 Nagai, Y., 618, 626, 627, 674
 Nagaiishi, H., 308
 Nagakawa, K., 885
 Nagasawa, M., 885
 Nagashima, N., 964
 Nagington, J., 478, 479
 Nagler, C., 416
 Nagley, P., 348, 364, 365
 Nagy, G., 99
 Naiman, J. L., 551
 Nair, P. P., 187, 188
 Nakada, H. I., 30, 42
 Nakagawa, H., 547, 557, 559
 Nakagawa, T., 973
 Nakajima, A., 871, 875, 876, 877, 878
 Nakajima, K., 419, 425, 504
 Nakajima, T., 873
 Nakamoto, T., 367
 Nakamura, A., 591
 Nakamura, H., 594
 Nakano, E., 260
 Nakano, J., 165, 167
 Nakano, M., 520
 Nakao, K., 112, 114
 Nakaoka, Y., 584
 Nakata, A., 425, 481
 Nakaya, A., 105
 Nakazawa, T., 799
 Nakazawa, Y., 131, 134
 Nance, W. E., 545
 Nandi, U. S., 241
 Nankina, V. P., 591
 Naono, S., 425
 Naot, Y., 483, 484, 486
 Napper, D. H., 875
 Narayanan, A. S., 662
 Nason, A. P., 108, 114
 Nass, M. M. K., 335, 337, 338, 342, 343, 345, 351, 352, 357, 366
 Nass, S., 334, 348, 350, 355, 359, 364, 367
 Nastuk, W. L., 938
 Nathan, D. G., 146
 Nathans, D., 380, 450, 453, 454
 Nathenson, S. G., 693, 734, 735
 Naum, Y., 366
 Naumov, A. D., 970
 Nawrot, C. F., 678, 691
 Nayfeh, S. N., 223
 Neary, J. T., 33
 Necheles, T. F., 546
 Neidhart, R. C., 434
 Neidle, S., 960, 975
 Neifakh, S. A., 745
 Neill, D. W., 567
 Nekhorocheff, J., 348, 349, 357, 358
 Nelson, G. J., 754
 Nelson, J. H., 855
 Nelson, N. A., 161, 162
 Nelson, N. J., 204
 Nelson, T. L., 547, 550, 562
 Nemes, M. M., 519, 520, 521, 522, 523, 532, 537
 Némethy, G., 870, 873, 881, 889
 Nepesova, Z. N., 105
 Ness, T. M., 520
 Nesse, R., 619, 623, 625
 Netter, P., 361, 362, 364, 365
 Neu, H. C., 786
 Neuberger, A., 111, 112, 674, 675, 678, 679, 683, 684, 688, 689, 694, 697, 954, 986, 987
 Neubert, D., 355
 Neufeld, E. F., 550, 552, 553, 554, 561, 565
 Neufeld, O. G., 187
 Neuhaus, F. C., 785, 786
 Neujahr, H. Y., 83, 100, 101
 Neuman, R. E., 105
 Neumann, C. G., 545
 Neumann, E., 884, 886
 Neupert, W., 348, 349, 359
 Neurath, H., 852
 Nève, P., 171
 Neville, D., 245, 246
 Neville, D. M., 734, 740, 745, 746
 Neville, E., 170

- Neville, M. M., 795
 New, M. I., 562
 Newberne, J. W., 525
 Newberry, W. M. Jr., 171
 Newby, R. F., 266, 268
 Newkirk, J. D., 152
 Newman, A., 317
 Newman, G. E., 57
 Newsholme, E. A., 39
 Newton, B. A., 857
 Newton, D., 114
 Newton, W. T., 163
 Ng, M. H., 521, 523, 531, 532, 735, 740
 Niblack, J. F., 521
 Nichaolds, G. E., 779, 787
 Nichols, A. V., 704, 705, 706, 712, 713, 714, 718, 719, 720, 721, 722, 725
 Nichols, J., 562
 Nicholson, J. F., 546
 Nickel, E., 933
 Nicolette, J. A., 204, 205, 206, 222
 Nicoll, P. A., 108
 Nicolson, G. L., 741, 744
 Niedermeier, W., 108
 Nielsen, N. C., 732
 Nielsen, N. O., 102
 Nielsen, S. O., 903, 904, 908, 909, 910, 911, 912, 916, 918, 919
 Niemi, M., 108
 Nieuwenhuizen, W., 147, 148, 149, 150, 152
 Niewiarowski, S., 106
 Nigmatullina, N. K., 116
 Nihei, T., 38, 599, 603
 Niida, T., 973
 Nikkanen, J., 112, 114
 Nikkari, T., 705
 Nikolskaya, T. I., 487
 Nilsson, B., 930
 Nimni, M. E., 625, 627, 654, 655, 656, 662
 Ning, J., 41
 Ninhham, B. W., 762
 Nirenberg, M., 171, 382
 Nishida, H., 449
 Nishida, S., 343, 345
 Nishida, T., 707, 712, 716, 717, 718
 Nishihara, T., 875
 Nishijima, Y., 849
 Nishimura, Y., 317, 320
 Nishioka, Y., 317
 Nishizuka, Y., 49, 381
 Nissen, H. M., 165
 Nissley, S. P., 271
 Nitowsky, H. M., 568
 Nitta, K., 411
 Nitz-Litzow, D., 194
 Nixon, P. F., 75
 Noat, G., 31, 36, 40
 Nobrega, F. S., 735
 Noda, H., 585, 886, 892
 Noda, L., 38, 46
 Nogawa, K., 115
 Noguchi, H., 584
 Noguchi, J., 879
 Noguchi, T., 745
 Nojima, S., 152, 153
 Nola, E., 214
 Nolan, C., 695
 Nold, J. G., 630
 Noll, H., 350, 402
 Nollendorf, A. F., 107
 Noller, H., 385
 Noltmann, E. A., 31, 44, 46
 Nomura, M., 378, 383, 386, 387, 388, 389, 390, 391, 393, 396, 399, 400, 401
 Nonaka, I., 102
 Nonomura, Y., 590, 593, 934
 Noonan, K., 506
 Noonan, S. M., 198
 Nordberg, G., 103
 Nordberg, G. F., 102
 Nordin, J. H., 674
 Nordlund, J. J., 537
 Nordman, C. E., 245, 246, 292, 617, 838
 Nordmann, Y., 551
 Nordwig, A., 618, 627, 636
 Noren, K., 102
 Norisuye, T., 884
 Norman, A. W., 180
 Norrby, E., 475
 Norris, F. A., 973
 Norseth, T., 99, 102, 103
 North, A. C. T., 961
 Northcote, D. H., 674, 675
 Norum, K. R., 545, 706, 720, 721
 Notani, G., 487
 Noteboom, W. D., 204, 205, 207, 208
 Notides, A. C., 206, 210, 211, 213, 221, 222
 Notton, B. M., 142
 Novak, R. L., 278
 Novelli, G. D., 16
 Novick, A., 269
 Novogrodsky, A., 171
 Novotny, C., 797
 Nowacki, J. A., 805
 Nowak, B., 98, 105, 110
 Nowak, E., 590
 Nowicki, H. G., 180
 Nowinski, R. C., 551, 567
 Nozaki, Y., 740, 741, 877
 Nozu, Y., 471
 Nüesch, J., 411
 Nugteren, D. H., 163, 165
 Numata, M., 209, 211, 212, 221, 222
 Nussgens, B. V., 631, 632
 Nussenzweig, R., 538
 Nüsslein, V., 307
 Nuzum, C. T., 546, 550
 Nyhan, W. L., 549, 568
 Nylund, R. E., 885, 886
 Nyman, P. O., 97, 106
 O
 Oakley, D. E., 148
 Oates, M. D. G., 692, 693
 Oberholzer, V. G., 545, 546, 548, 550
 Oberle, M. W., 116
 O'Brien, E. J., 592, 593
 O'Brien, J. R., 57
 O'Brien, J. S., 543, 545, 546, 548, 550, 552, 554, 555, 556, 561, 696, 732
 O'Brien, R. D., 942, 947
 O'Brien, R. L., 508
 O'Brien, T. W., 348, 349
 O'Brien, W. M., 525
 Ochoa, S., 5, 383, 384
 Öckerman, P. A., 546, 552
 O'Connell, E. L., 988
 O'Connor, M. J., 604
 Oda, K., 509
 Oda, T., 335, 342, 345
 O'Dell, B. L., 640, 654
 O'Dell, T. B., 519
 O'Donnell, G. W., 963
 Odyne, R. N., 116
 Oertel, W., 311
 Oeshevsky, U., 738
 Oesterheld, D., 732, 735, 740, 747
 Oey, J. L., 307, 308, 315
 Ofengand, J., 258
 Offer, G., 578, 581, 590
 O'Flynn, M. E., 547, 550
 Ogawa, S., 823
 Ogawa, Y., 604, 606
 Ogburn, C. A., 518
 Ogle, J. D., 627
 Ogra, P. L., 536
 Ogston, A. G., 36, 37, 876
 Oh, J. O., 538
 Ohki, E., 973
 Ohki, M., 313, 317
 Ohki, S., 759
 Ohlenbusch, H. H., 252
 Ohlsson-Wilhelm, B. M., 430, 431
 Ohmori, H., 56, 80
 Ohnishi, M., 873
 Ohnishi, T., 745
 Ohno, T., 471
 Ohnuma, J., 610
 Ohta, N., 779, 782, 802
 Ohtsuka, E., 311

- Ohtsuki, I., 587, 593,
 604
 Oishi, M., 434, 436, 456
 Ojala, D., 348
 Okabayashi, H., 879
 Okabe, K., 31, 44
 Okada, G., 977, 986
 Okada, S., 545, 552, 555,
 696
 Okada, Y., 471
 Okamoto, T., 278, 281, 286,
 287, 288, 289, 379, 402, 414,
 416, 417, 418, 436
 Okazaki, R., 302, 306, 307,
 310
 Okazaki, T., 302, 310
 Oknaka, R., 481, 483, 485,
 486
 Oknaka, R. T., 483, 485,
 486
 Okita, K., 884, 885, 886
 Okuda, J., 984
 Okuda, T., 962
 Okumura, T., 680, 684
 Okuyama, H., 138, 139, 152,
 153
 Olagson, R. W., 732
 Oldigs, H. D., 151
 Olins, A. L., 249, 250, 251,
 252
 Olins, D. E., 249, 250, 251,
 252, 253
 Olivecrona, T., 723, 740
 Oliver, J. M., 204
 Olivera, B. M., 252, 309,
 310, 311
 Olsen, B. R., 628
 Olshesky, U., 494
 Olson, J. A., 106
 Olson, J. P., 194, 196
 Olson, O. E., 31
 Olson, R. E., 184, 188, 192,
 194, 195, 196, 198
 Olsson, M., 102
 Olsson, Y., 102
 O'Malley, B. W., 214, 215,
 216, 217, 218, 219, 220,
 221
 Omdahl, J., 180
 Omoto, S., 976
 Omura, S., 343, 345
 Onajobi, F. D., 724
 Oncley, J. L., 704, 713, 718,
 725, 743, 744
 O'Neil, J. W., 878
 Onishi, H., 594
 Ono, S., 106, 985
 Ono, Y., 384
 Ooi, T., 583, 584, 873,
 880
 Oosawa, F., 583, 584, 585,
 608, 609, 910
 Oparin, A. I., 759
 Opie, L. H., 39
 Oplarka, A., 601
 Oppenheim, J., 870, 875
 Oppenheimer, H., 578
 Oppenheimer, S. B., 696
 O'Reilly, J. M., 886
 O'Reilly, R. A., 191, 193,
 194
 O'Reilly, R. J., 107
 Orgel, L., 411, 431
 Oriel, P., 879
 Oriel, P. J., 892
 Orlii, T., 145
 Oriol, C., 31, 45
 Orloff, J., 169
 Orofino, T. A., 875, 887
 Orr, C. W., 696
 Orrell, K. G., 884
 Orrell, S. A., 675
 Ortali, V., 520
 Osaki, K., 962
 Osawa, S., 386, 392
 Osawa, T., 981
 Osber, M. P., 977
 Osborn, M., 740
 Osborn, M. J., 796
 Osborne-White, W. S., 58
 Oshiro, Y., 733
 Oski, F. A., 112, 114, 115,
 186
 Ostadalova, I., 102,
 108
 Oster, G., 849
 Ostergard, D. R., 560
 Osterland, C. K., 854
 Osterman, J. V., 566
 Ostler, H. B., 538
 Ostrow, D., 144
 Ostroy, S. E., 886, 887,
 889, 890, 892
 O'Sullivan, A., 321
 O'Sullivan, W. J., 33, 36,
 37, 43, 44, 45, 547, 551
 Ota, N., 102
 Otaka, E., 386, 392
 Otsuka, M., 934
 Otten, J., 171
 Ottesen, M., 903, 904
 Otto, B., 307
 Ottolenghi, A., 149, 153
 Oughton, B. M., 878
 Ovchinnikov, Yu. A., 873,
 881
 Overath, P., 806
 Overbeek, J. T. G., 249,
 761
 Overby, L. R., 473
 Overend, W. G., 979
 Owen, C. A. Jr., 193,
 194
 Oxender, D. L., 777-814;
 778, 779, 784, 786, 787,
 789, 790, 791, 792, 794,
 803
 Oyama, Y., 419, 425
 Oyasu, R., 114
 Ozaki, M., 376, 386, 387,
 389, 391, 396, 399, 400,
 401, 892
 Ozanne, B., 506
 Ozeki, T., 676, 677
 Ozer, H., 505
 Ozer, H. L., 475
 Ozols, J., 735
- P
- Pabon, H. J. J., 164
 Pace, B. K., 433
 Pace, N. R., 433, 434
 Pace-Asciak, C., 162, 163,
 164, 165, 166
 Pack, B. A., 207
 Packer, L., 859
 Packman, S., 423
 Paetkau, V. H., 30, 31,
 46
 Pagano, J. S., 475
 Page, I. H., 722
 Page, J. G., 194
 Page, R. C., 654
 Paglia, D. E., 546, 551
 Paigen, K., 455
 Paik, W. K., 674
 Palles, W. H., 74, 76
 Pain, R. H., 692, 694
 Paireault, J., 342, 343,
 345
 Paiva, A. C. M., 910, 911
 Paiva, T. B., 910, 911
 Pak, C. Y. C., 633
 Pakalne, D., 107
 Pakula, S., 220, 221, 222
 Palade, G. E., 142,
 929
 Palay, S. L., 927, 929
 Pall, M. L., 791, 794
 Palm, P., 280, 291
 Palmer, M. A., 163
 Palmieri, R. H., 31
 Palo, J., 545, 552
 Paltauf, F., 132, 133
 Pande, S. V., 154
 Panferov, V. S., 115
 Pao, P. B. R., 194
 Pao, Y. H., 880
 Paoletti, C., 244, 342, 343,
 345, 855
 Paoletti, C. A., 334, 342,
 343, 344
 Paoletti, E., 535
 Paoletti, J., 245, 335,
 855
 Paolillo, L., 881
 Paolucci, A. M., 194
 Papajadjopoulos, D., 755,
 763, 764, 765, 766, 769
 Papaioannou, R., 653,
 655
 Papermaster, D. S., 739
 Papkoff, H., 676
 Parada, O., 559
 Paranchych, W., 473
 Parasi, B., 348
 Pardee, A. B., 778, 779,
 781, 782, 802, 807
 Pardon, J. F., 252
 Parisi, M., 945

- Parisutti, G., 97
 Parizek, J., 102, 108
 Park, J. H., 537
 Park, Y. J., 962, 963
 Parker, C. W., 163, 171, 172, 854
 Parker, F. S., 904
 Parker, H. M., 786
 Parker, L., 602
 Parker, M., 92
 Parkes, J. G., 143
 Parkhouse, R. M. E., 674
 Parks, J. S., 271
 Parks, R. E., 31, 32, 33, 40, 42, 43, 46, 48
 Parmar, S. S., 190
 Parmeggiani, A., 49
 Parrish, F. W., 973, 985
 Parry, M. J., 31, 33, 43, 45
 Parsa, B., 154
 Parsegian, V. A., 762
 Parsons, D. F., 142, 732, 755
 Parsons, J. A., 346
 Parsons, J. T., 475
 Partridge, S. M., 618, 640, 651, 653, 654, 657, 658, 674
 Parvin, R., 29
 Pasquina, A., 213
 Pasquini, J. M., 945
 Passamani, E., 75
 Passero, F., 247, 248
 Passey, R. B., 148, 149, 150
 Passow, H., 102, 113
 Pastan, L., 61, 171, 270, 431, 533
 Pate, F. M., 108
 Paterson, B., 578, 579, 580
 Pato, M. L., 318, 322
 Paton, W. D. M., 941
 Patrick, A. D., 547, 552, 556, 558
 Patrick, J., 860
 Patrick, J. W., 31
 Patrone, E., 881, 886
 Patte, J. C., 47, 49
 Patterson, P. H., 144
 Patterson, R. B., 547, 551
 Patton, G. M., 359
 Paucker, K., 517, 528, 529, 532
 Paul, C., 679
 Pauling, C., 309
 Pauling, L., 870, 873, 874
 Paulsen, H., 966
 Paulus, H., 30, 31
 Pavia, A. A., 967
 Pavlasva, E., 805
 Pavlik, L., 102
 Pawelkiewicz, J., 66
 Pawlak, J., 98
 Paxton, J., 494
 Payne, B. J., 694
 Payne, J. W., 778
 Payne, L. N., 511
 Paz, M. A., 654, 655, 656, 657, 658, 660
 Pazur, J. H., 684, 697
 Peach, C. M., 653, 654, 655, 656, 657
 Peachey, L. D., 604
 Peacocke, A. R., 31, 244
 Peake, G., 168
 Pearlman, M. R. J., 207
 Pearlman, R. E., 346
 Pearlman, W. H., 207
 Pecora, L., 112, 115
 Pedersen, C., 970
 Pedersen, C. J., 766
 Pedersen, P. L., 31, 42, 736
 Pedone, C., 878
 Peery, C. V., 171
 Peggion, E., 873, 880, 884
 Pekas, D. J., 743, 744
 Pelkonen, R., 546
 Peller, L., 882, 884, 887
 Pendyala, L., 794
 Penefsky, H. S., 859
 Penev, P. D., 115
 Peng, T. C., 168
 Penley, M. W., 81, 83, 96, 100
 Penman, S., 348, 349, 350, 351, 353, 354, 355, 366, 367
 Pennington, R. J. T., 545, 552, 556
 Penniston, J. T., 258, 745
 Pennock, J. F., 184
 Penny, I. F., 31
 Penrose, W. R., 779, 787, 803
 Pensky, J., 105
 Pentchev, P. G., 984
 Pepe, F. A., 592
 Pepper, D. S., 675, 734
 Perahia, D., 872, 873
 Perani, A., 348
 Percheron, F., 972
 Percival, E., 691
 Pereira, H. G., 475
 Pereira, M., 197
 Pereira de Silva, L. H., 423
 Perin, G., 110, 112, 114
 Perkins, A. K., 102
 Perkins, D. J., 97, 104
 Perlin, A. S., 968, 985, 987
 Perlman, P. S., 358, 359, 360, 364
 Perlman, R. L., 270, 431
 Perlman, S., 349, 353, 355, 366
 Perlmann, G. E., 674, 679, 684
 Pernis, B., 106, 108, 113
 Pernod, J., 190
 Perold, G. W., 976
 Perrie, W. T., 578
 Perrin, J. H., 873, 880
 Perrodin, G., 347
 Perry, E. F., 108
 Perry, H. M. Jr., 108
 Perry, J. W., 796
 Perry, M. M., 609
 Perry, S. V., 578, 582, 583, 586, 588
 Perry, T. L., 545, 562
 Persson, G., 102
 Perutz, M. F., 816, 818, 822, 823
 Pesaresi, C., 112, 115
 Pessereau, G., 190
 Pestka, S., 381
 Peterkofsky, B., 660
 Peters, A., 927
 Peters, J. M., 106
 Peters, R., 5
 Peters, R. A., 96
 Peters, T., 690
 Peters, T. J., 546
 Petersen, K., 105
 Peterson, N. A., 562
 Peterson, R. E., 562
 Peterson, R. L., 433
 Peterson, W. H., 105
 Pethica, B. A., 761, 762, 767
 Peticolas, W. L., 873
 Petticlerc, C., 104
 Peto, R., 692
 Petricciani, J. C., 566
 Petrochilo, E., 361, 362, 364, 365
 Petrovic, C., 116
 Petrovic, J., 334
 Petruska, J. A., 640
 Pettersson, U., 473, 474, 475, 476
 Pettijohn, D., 279
 Pettijohn, D. E., 325, 433, 434, 438, 480
 Petzold, G. L., 49, 144
 Peyre, A., 106
 Peyton, M. P., 674
 Pfab, F. K., 636
 Pfaff, D. W., 207
 Pfefferkorn, E. R., 474, 494, 738
 Pfeiffer, P. M., 189
 Pfeiffer, P., 99
 Pfeiffer, R., 932
 Pfeiffer, S. E., 631, 632
 Pfitzer, E. A., 113, 114
 Pfleger, R. C., 142
 Pham-Huu-Chanh, 105, 108
 Philippart, M., 987
 Philipps, G., 194, 196
 Phillips, L., 473, 474,

- 475, 476
 Phillips, B. A., 478
 Phillips, D. C., 877
 Phillips, D. R., 740, 741, 742, 743, 744
 Phillips, L., 969, 970
 Phillips, L. A., 383, 402
 Phillips, L. L., 564
 Phillips, R., 34
 Phillips, W. D., 904
 Phillippu, A., 932
 Piantadosi, C., 131, 132, 133
 Piatelli, M., 890
 Pica-Mattoccia, L., 347, 353
 Picard, J., 721
 Picco, C., 851
 Pickering, Q. H., 107, 114
 Piechowski, M. M., 485
 Pierce, J. G., 678, 677
 Pierce, L. E., 744
 Pierce, N. F., 168, 169
 Pierucci, O., 313, 324, 325, 326
 Pieterman, W. A., 149, 150
 Piez, K. A., 618, 619, 621, 622, 623, 624, 626, 627, 628, 629, 630, 631, 632, 633, 635, 640, 653, 654, 656, 684, 870, 874, 882, 892
 Pigman, W., 682, 688, 954, 982
 Pihl, A., 46
 Pike, J., 161, 162
 Pike, J. E., 161, 162, 165, 166
 Pikkariainen, J., 627
 Piko, L., 337
 Pilarski, L., 414, 415, 423, 434
 Pilbrow, J. R., 73
 Pilch, D. J. F., 537
 Pilet, J., 879
 Pillay, K. K. S., 103
 Pincus, J. H., 557, 558
 Pindak, F. F., 536, 537
 Pine, M. J., 83
 Pines, S. H., 971
 Pink, H., 242
 Pinnell, S. R., 637, 653, 654, 695
 Pinsley, C. L., 104
 Pinto da Silva, P., 744, 747
 Piotrowski, J., 97, 102
 Pious, D. A., 368
 Piper, D. J., 163, 168, 169
 Piper, R. C., 102
 Piperno, G., 338, 339, 340, 364
 Piperno, J. R., 779, 785, 786, 787, 790
 Piros, K., 547, 558
 Pirota, M., 145
 Pirrotta, V., 272, 273, 274, 275, 423, 424, 529
 Pirt, S. J., 977
 Pisano, J. J., 674
 Piscator, M., 105, 106, 107, 108
 Pitha, J., 108, 523
 Pitha, P. M., 523, 528, 529, 530
 Pitt-Rivers, R., 740
 Plancade, Y., 105
 Planta, R. J., 350
 Planterose, D. N., 537
 Plasse, A. M., 171
 Platt, T., 439
 Plaut, G. W. E., 105
 Pletcher, J., 959
 Plocke, D. J., 106
 Plummer, T. H., 680, 684, 686
 Pochon, F., 855
 Pocker, A., 31, 48
 Podleski, T. R., 860, 937, 938, 940, 942, 943, 944
 Podlubnaya, Z. A., 591
 Podolsky, R. J., 606
 Podratz, K. C., 215
 Pogell, B. M., 795, 852
 Poglazov, B. F., 487
 Pogson, C. I., 983, 989
 Poinsner, A. M., 930, 931
 Poland, D., 254, 256, 257
 Poland, D. C., 870, 871, 882, 883, 884, 887, 892
 Polheim, D., 132
 Pollack, A. D., 547
 Pollack, R. E., 509
 Pollard, H., 714, 715, 716, 717, 718, 726
 Pollard, T. D., 609, 610, 744
 Polli, E., 338, 349
 Polman, H. A., 185, 547, 558
 Ponds, S. L., 618, 621, 622, 625
 Pons, M. W., 474
 Pontecorvo, G., 526
 Pontremoli, S., 851
 Pontz, B., 627
 Pool, J. G., 191, 194
 Poonian, P., 314
 Pope, B., 580
 Pope, G. S., 207
 Poplawski, A., 102
 Poppleton, B. J., 962
 Porath, J., 945
 Porcellati, G., 145
 Poretz, R. D., 692
 Porod, G., 885
 Porta, E. A., 189
 Porter, F. S., 547, 551, 557
 Porter, G., 847
 Porter, J. W., 40
 Porter, M. T., 565
 Portmann, A. J., 843, 854
 Portnova, S. L., 873, 881
 Portolan, A., 880
 Portzehl, H., 578, 603
 Possmayer, F., 135, 137, 141, 144
 Post, R. L., 745, 780
 Postema, N. M., 147, 148, 149, 150, 152
 Poston, J. M., 84, 85
 Potter, J., 880
 Potter, L. T., 929, 933, 934, 935, 946, 947
 Potter, M., 679, 690
 Poulos, A., 135
 Poulsen, A., 908, 909, 910, 911, 912, 913
 Pounder, O. J., 152
 Pouwels, P. H., 338
 Powell, G. W., 108
 Poyer, J. L., 189
 Poyser, N., 163, 167
 Poznansky, M. J., 565
 Pozzi, U., 112
 Pradel, L. A., 31, 32, 39, 40, 42, 43, 45, 46, 47, 48
 Prage, L., 473, 475, 476
 Praissman, M., 904
 Prancan, A. V., 165
 Pratt, D., 263, 315, 468
 Pratt, D. R., 733, 735, 737
 Pratt, J. M., 73, 83, 100
 Preaux, G., 105
 Premasagar, K. D. A., 107
 Prensly, A. L., 552, 556, 562
 Prescott, L. F., 98
 Press, E. M., 679
 Pressman, B. C., 766, 873
 Prestidge, L. S., 781
 Prevec, L., 474
 Prevost, S. C., 583
 Price, J. M., 719
 Price, T. D., 304
 Pricer, W. E., 689
 Princ, F. A., 108
 Pringle, B. H., 107
 Pringle, J. R., 31, 740, 745
 Printz, M. P., 256
 Prinzie, A., 534
 Prior, G., 584
 Pritchard, R. H., 324
 Prival, E. L., 165
 Prives, J., 940, 941, 947
 Probst, G. W., 519
 Prockop, D. J., 631, 633, 634, 635, 636, 637, 662, 674, 675, 688, 690
 Prodan, L. J., 108
 Prokopowicz, J., 102
 Proulx, P., 152
 Prou-Wartelle, O., 197
 Prutton, L., 524, 525

- Ptashne, M., 272, 273, 274,
 275, 421, 423, 424, 529
 Pittsytyn, O. B., 870, 874, 875,
 880, 882, 885
 Puca, G. A., 207, 209, 210,
 212, 214
 Pucell, A. G., 605
 Pugh, E. L., 130
 Pugh, W. E., 512
 Puglisi, L., 169, 170
 Puleo, L. E., 138
 Pulido, P., 97, 105
 Pulitzer, J. F., 426, 491
 Pullman, B., 870, 872, 873,
 878
 Punnett, H. H., 548, 561
 Purich, D. L., 41
 Purifoy, J. E., 108
 Puszkis, S., 609
 Puzstai, A., 689
 Putman, F. W., 679, 690
 Puukka, R., 154
 Pysh, E. S., 879, 880
 Pyun, H. Y., 602
- Q
- Quadbeck, G., 547
 Quadrifoglio, F., 879, 880
 Quagliata, F., 168
 Quastel, D. M. J., 934
 Quastel, J. H., 111
 Quigley, G. J., 959
 Quinlivan, J., 597, 598
 Quinn, P., 763
 Quinn, W. G., 312, 314,
 326
 Quiocho, F. A., 816, 817,
 838
 Quivoron, C., 889
- R
- Rabbitts, T. H., 348
 Rabin, R. R., 44, 45
 Rabinovitz, M., 114
 Rabinowitz, J., 382
 Rabinowitz, M., 334, 335,
 337, 345, 347, 348, 350, 351,
 352, 357, 358, 359, 364, 365,
 366, 367
 Rabinowitz, Z., 509
 Rabotnova, I. L., 114
 Rabson, A. S., 163, 534
 Rabussay, D., 429
 Racela, A. S., 565
 Rachaman, E. S., 685
 Rachmeler, M., 568
 Racker, E., 736, 746
 Rada, B., 534
 Radatus, B., 974, 981
 Radda, G. K., 843, 844, 849,
 852, 857, 858, 859
 Radford, E. P., 114
 Radin, N. S., 737
 Radsak, K., 345, 366
 Radzivilskaya, E. G., 112
- Rafelson, M. E., 744, 745
 Rafferty, M. A., 985
 Raggi, V., 107
 Rahaminoff, R., 928
 Rahbar, S., 674
 Rahm, J. J., 164
 Rahman, Y. E., 151
 Rahmanian, M., 787
 Rahmann, A., 964
 Rai, U. S., 546
 Rainard, B., 171
 Rainey, W. T. Jr., 131
 Rainford, N., 538
 Raisz, L. G., 170, 171
 Raivio, K. O., 543-76
 RajBhandary, U. L., 855
 Raju, E. V., 260
 Rak, K. H., 391, 396
 Ralph, A., 977
 Ralph, R. K., 367
 Ralston, D. J., 450
 Ramachandran, G. N., 618,
 870, 871, 873, 878, 881
 Ramachandran, J., 880,
 892
 Ramachandran, L. K., 97
 Ramakrishnan, C., 870
 Ramaley, P. B., 632
 Rama Reddy, G. V., 308
 Ramaswami, L. S., 108
 Rambach, A., 320,
 327
 Ramel, C., 99
 Ramwell, P. W., 161, 162,
 163, 165, 168, 169, 170,
 171
 Ranck, J. L., 857
 Randall, A. A., 890
 Randall, L., 385, 390, 398,
 399
 Randall-Hazelbauer, L. L.,
 390, 391, 399, 401
 Rang, H. P., 938, 939,
 941
 Ranhotra, G. S., 194, 195,
 196
 Ranney, H. M., 545, 674
 Rao, B. R., 209, 216, 217,
 218, 219
 Rao, G. A., 138
 Rao, M. S. N., 107
 Rao, N. V., 630, 653
 Rao, R. H., 152, 153
 Rao, S. T., 963, 964
 Raper, J. H., 31
 Rapport, M. M., 710,
 711
 Raskas, H. J., 383, 402,
 475
 Rasmussen, H., 170, 171,
 172, 180
 Raszka, M., 910, 917
 Ratcliffe, W. A., 694
 Ratliff, R. L., 31, 278
 Rattle, H. W. E., 253
 Raukas, E., 249
 Raunhardt, O., 985
- Rausa, G., 109, 110, 112,
 113, 114
 Rautenberg, J., 619, 623,
 627, 662
 Rautu, R., 116
 Ravel, J. M., 380
 Rawls, H. R., 845
 Rawls, R. F., 545
 Ray, D. S., 309, 315,
 468
 Ray, T. K., 138, 142
 Ray, W. J., 535
 Raymont, J., 721
 Raynaud, J. P., 212, 213
 Raynaud-Jammet, C., 221
 Rayner, E. P., 334,
 368
 Raz, A., 712
 Razafimahaleo, E., 679
 Razin, A., 315, 477
 Razin, S., 732
 Reader, W., 712, 714, 716,
 717
 Rebeyrotte, P., 98
 Reddi, A. H., 204
 Reddy, B. S., 964
 Reddy, C. A., 81
 Reddy, J. M., 885
 Reddy, W. J., 171
 Redfield, B. G., 79
 Redwood, W. R., 759
 Reed, C. R., 146
 Reed, E. B., 57, 58
 Reeder, G. L., 208
 Reedy, M. K., 589, 594
 Reekie, G. N. Jr., 816, 817,
 838
 Reel, J. R., 216, 218
 Reerink, J. D., 547, 558
 Rees, D. A., 961, 963
 Rees, M. K., 582
 Reese, E. T., 873, 985
 Regan, J. D., 547
 Regelson, W., 519
 Regnour, F., 31
 Rehn, K., 806
 Rehnberg, C. S., 705, 713
 Reich, E., 245, 246, 855,
 947
 Reichard, P., 75
 Reichardt, L., 275
 Reichert, L. E. Jr., 697
 Reid, B. L., 105
 Reid, L., 694
 Reijnders, L., 348, 349,
 350, 362
 Reimann, E. M., 413
 Reimann, H., 973, 974
 Reimo, T., 676, 677
 Reinert, J. C., 769
 Reiness, G., 270
 Reiser, R., 138
 Reiser, S., 186
 Reisfeld, R. A., 693, 734,
 745
 Reiss, H., 892
 Reiss, I., 603, 604, 605

- Reiss, U., 189
 Reitz, R. C., 141
 Reitz, R. H., 785
 Raman, F. C., 771
 Remeza, V., 436
 Remington, J. S., 538
 Remold-O'Donnell, E., 284, 383, 384
 Remsen, C. C., 480
 Renger, H., 323
 Renger, H. C., 342, 345
 Renkonen, O., 135, 722
 Renz, P., 71
 Resibois, A., 545, 554
 Rétey, J., 63, 71, 350
 Reti, I., 213
 Retsema, J. A., 392
 Reuben, J., 47
 Reuter, L. A., 216
 Revel, H., 448
 Revel, M., 383, 384
 Revelas, E., 313, 324, 325, 326
 Rexrodt, F., 618, 621, 625, 627
 Rey, J., 543
 Rey-Lafon, M., 889
 Reynold, W., 633
 Reynolds, J. A., 737, 740, 741
 Reza, M. J., 977
 Reznikoff, C., 504
 Reznikoff, P., 113
 Reznikov, I. V., 855
 Rezzonico, A., 110
 Rhaese, H. J., 337
 Rhi, L., 653, 656
 Rhoads, D. G., 30, 40
 Rhoads, R. E., 636, 637, 638, 682, 684
 Rhodes, W., 879
 Rhyne, B., 110
 Ricard, J., 31, 36, 40
 Rice, R., 594
 Rice, S. A., 882, 884, 886
 Rich, A., 236, 524, 635
 Richards, B. M., 252
 Richards, E. G., 255, 716, 717
 Richards, F. M., 259, 915
 Richards, G. N., 963
 Richards, J. H., 55, 56, 60, 62, 63, 65
 Richards, O. C., 337, 347
 Richards, R. E., 852
 Richardson, C. C., 302, 307, 309, 418
 Richardson, J. P., 276, 277, 278, 282, 287, 288, 289, 290, 414, 427
 Richardson, M. E., 108
 Richet, G., 115
 Richter, D., 348
 Richter, J. A., 935
 Richerich, R., 546
 Rickenberg, H. V., 170, 786, 794
 Rickes, E. L., 520
 Rickli, E. E., 97
 Ridgeway, E. B., 604
 Ridsdale, S., 83
 Rieske, J. S., 736
 Rifkin, D. B., 738, 746
 Rifkin, M. R., 362, 364
 Rifkind, J. M., 874, 891
 Riggs, A., 826, 904
 Riggs, A. D., 266, 267, 268, 270, 273, 274, 275, 318, 432, 529
 Riggs, T. R., 786, 804
 Righthand, F., 536
 Riley, C. M., 564
 Riley, F. L., 342
 Riley, P. A., 280
 Riley, W. D., 31
 Rimal, L., 35
 Rimington, C., 112
 Ring, K., 794
 Ringoir, S., 98
 Ringold, H. J., 213
 Riordan, J. F., 97
 Riou, G., 334, 342, 343, 344, 345
 Ripamonti, A., 870, 871
 Rippa, M., 851
 Rippon, W. B., 880
 Ris, H., 252
 Risby, D., 578, 580
 Risdale, S., 100
 Rita, G., 532
 Ritari, S. J., 79
 Ritchie, D. A., 319, 418, 419
 Ritchie, J. H., 186, 187
 Ritchie, R., 480, 481
 Ritter, J. M., 938, 939
 Ritter, M. C., 724
 Ritzén, E. M., 223
 Ritzl, V. F., 192
 Riva, S., 426, 429, 487
 Rivas, E., 945
 Rivier, C., 171
 Rizzino, A. A., 601
 Rizzoli, A. A., 109, 110, 113
 Ro'Ane, J. T., 170
 Robb, J. A., 504
 Robberson, D., 348, 349, 357
 Robberson, D. L., 319, 344, 345
 Robbie, J. P., 800
 Robbins, P. W., 469
 Robel, P., 223
 Robert, B., 640, 675
 Robert, L., 640, 675
 Robertson, A. M., 81, 82
 Roberts, D. E., 890
 Roberts, G. C. K., 881, 884
 Roberts, G. P., 694
 Roberts, I. M., 367
 Roberts, J. D., 968
 Roberts, J. W., 277, 278, 289, 290, 412, 414, 422, 423, 424, 427, 436
 Robertson, A. F., 153
 Robertson, D. M., 207, 210, 213
 Robertson, H. S., 383
 Robertson, J. D., 754
 Robertus, J. D., 816
 Robin, M. B., 870, 878
 Robin, Y., 31
 Robins, A. K., 972
 Robins, M. J., 974
 Robins, R. K., 973
 Robinson, D., 696
 Robinson, D. R., 243
 Robinson, D. S., 693, 694
 Robinson, G. B., 691
 Robinson, H. L., 474, 738
 Robinson, J., 194
 Robinson, S. H., 565
 Robinson, W., 735, 740
 Robinson, W. S., 738
 Robison, G. A., 170, 171, 224
 Roblin, R., 474, 475, 507
 Robson, R. M., 589, 593
 Roche, J., 31, 686
 Roche, R. S., 880
 Rochefort, H., 209
 Rodbard, R., 740
 Rodén, L., 674, 682, 686
 Rodesch, F. R., 171
 Rodriguez, A., 945, 948
 Rodriguez, B. L., 113
 Roels, O. A., 186
 Roerig, S., 683
 Rogentine, G. N., 693
 Rogers, A. W., 217
 Rogers, D., 960, 975
 Rogers, J., 758
 Rogers, L. E., 547, 551, 557
 Rogers, S., 545, 549, 568
 Rogers, S. J., 855
 Rogulenkova, V. N., 892
 Rohoosky, M. W., 525
 Rohrer, D. C., 963, 964
 Roig, A., 882, 883, 884, 885, 886, 888, 889, 891
 Roizman, B., 474
 Rojkind, M., 618, 633, 640, 653, 654, 656
 Rokkones, T., 545, 550
 Romanovskaya, L. N., 855
 Romeo, G., 547, 568, 766, 987
 Romero, C. H., 945, 948

- Ron, E. Z., 382
 Rosales, F., 79
 Roscoe, D. H., 435
 Rose, H. M., 493, 494
 Rose, I. A., 324, 988, 989, 990
 Rose, J. A., 506
 Rose, J. K., 793
 Rose, M. C., 907, 916
 Rose, S. P., 806
 Rosell, S., 163
 Roseman, S., 696, 735, 740, 746, 778, 795, 798, 799, 805, 978
 Rosen, B. P., 789, 791, 792
 Rosen, C. G., 83, 100, 101, 848, 850
 Rosen, H., 618
 Rosen, I. C., 892
 Rosen, O. M., 110
 Rosen, S. M., 110
 Rosenberg, A., 105, 911, 912, 913, 914, 919, 921
 Rosenberg, B. H., 324, 325
 Rosenberg, H., 782, 802
 Rosenberg, I. N., 171
 Rosenberg, L., 694
 Rosenberg, L. E., 59, 60, 83, 546, 547, 548, 550, 557, 558
 Rosenberg, S. A., 732, 739, 740, 742
 Rosenblatt, D. N., 959
 Rosenbloom, F. M., 59, 546, 547, 548, 549, 550, 557, 558, 563, 567, 568
 Rosenbloom, J., 632, 634, 635, 637, 674, 675, 690
 Rosenbluth, R., 848
 Rosenbusch, J., 472
 Rosenfeld, A., 258, 921
 Rosenfeld, G. C., 221
 Rosenheck, K., 748, 879, 890
 Rosenkranz, H. S., 473
 Rosenstein, R. D., 962, 963, 964
 Rosenthal, A. S., 109, 110, 714, 715, 716, 717, 741, 745
 Rosenthal, S., 75
 Roslansky, P. F., 488
 Rosman, M., 380
 Rosman, N. P., 552, 556
 Ross, P. D., 240
 Ross, R., 651, 652, 653
 Rosse, W. F., 767
 Rosset, R., 387, 391, 400, 401
 Rossetti, G. P., 393
 Rossi, E., 546
 Rossman, T. G., 533
 Rossomando, E. F., 468
 Rotem, Z., 519, 520, 526
 Roth, F. K., 511
 Roth, J. R., 788, 789, 790
 Roth, L. J., 209, 210, 221
 Rothe, M., 879
 Rothfield, L., 735, 764
 Rothschild, C., 691, 693
 Rothstein, A., 97, 102, 734, 740, 741, 743
 Rotman, B., 779, 795, 796, 797
 Rott, R., 474
 Roulland-Dussoix, D., 449, 450, 452, 453, 454, 459, 460, 461
 Roumiantzeff, M., 478
 Rouser, G., 142, 754
 Rouslin, W., 359
 Rousset, S., 533
 Roustian, C., 39, 40, 42, 43, 45, 46, 48
 Rowe, W. P., 507, 512
 Rowland, L. P., 31, 32, 545, 546
 Roy, S., 207
 Rubalcava, B., 857
 Rubin, A. L., 630
 Rubin, C. S., 551, 567
 Rubin, H., 510
 Rubino, G. F., 113
 Rubulis, A., 545
 Ruby, A., 739
 Rucker, R. R., 102
 Rudall, K. M., 640, 683, 690
 Rüdiger, H., 78, 79
 Rüdiger, H. W., 546
 Rudin, D. O., 754, 758, 766, 769
 Rudland, P. S., 383, 384
 Rudman, D., 708, 710, 718
 Rudner, R., 436
 Rudolph, F. B., 40, 41, 43
 Rueckert, R. R., 478, 479, 740
 Ruessel, H. A., 110
 Rugstad, H. E., 565
 Rühlman, A., 816, 835
 Ruiz-Manresa, F., 936, 937
 Rulifson, W. S., 972
 Ruoslahti, E. I., 739
 Rupley, J. A., 815, 818, 827, 904, 957
 Rupp, W. D., 313, 317
 Rusch, H. P., 368
 Rush, R. A., 932
 Rushizky, G. W., 248
 Russ, E. M., 721
 Russell, G. R., 58
 Russell, P. J., 31, 33, 40, 46
 Russell, P. T., 163
 Russell, R., 110
 Russell, S. A., 75
 Russell, T. S., 102
 Russell, W. C., 476
 Rustad, R. C., 346
 Rutherford, D., 953
 Rutenberg, G. J. C. M., 335, 337, 338, 339, 340, 356
 Ruzicka, F. J., 150
 Ryan, K. J., 972
 Ryan, R. S., 337, 347
 Rydon, H. N., 884
 Ryley, H. C., 694
 Ryman, B. E., 760
 Ryme, I. J., 921
 Rytel, M. W., 520
 Ryter, A., 438, 485
- S
- Saari, J. C., 31, 48
 Saboe, S., 383
 Saccone, C., 348, 353, 354
 Sachs, H. W., 108
 Sachs, L., 509
 Sacks, W., 983, 984
 Sadava, D., 674
 Sadler, J. R., 265, 269, 270
 Saeki, H., 973
 Saenger, W., 964
 Sage, H. J., 880, 889, 930
 Sala, B., 109, 110, 113
 Sailer, M. H. Jr., 799
 Sairam, M. R., 676
 Saito, K., 102, 153
 Saito, M., 32, 102
 Saito, N., 962
 Saito, T., 513
 Sajdera, S. W., 683, 694
 Sakagami, T., 145, 146, 147
 Sakaguchi, K., 260
 Sakai, R., 892
 Sakai, T., 618, 627
 Sakaki, Y., 326
 Sakakibara, I., 582
 Sakakibara, S., 879
 Sakami, W., 79
 Sakamoto, T., 764
 Sakamoto, Y., 764
 Sakhibov, D. N., 148
 Sakore, T. D., 245, 246, 292, 817, 838
 Sala, F., 348
 Salach, J. I., 148, 149, 150, 151
 Salahuddin, A., 877
 Salas, J., 49
 Salas, M., 384
 Salas, M. J., 31, 49
 Salb, J. M., 534
 Salcedo, L. L., 654, 656
 Salivar, W. O., 326, 327
 Salmon, A. G., 852

- Salovey, R., 885
 Salisbury, Z. W., 892
 Salser, W., 425, 426
 Salstrom, J. S., 263, 315
 Saltman, P., 692, 693
 Salton, M. R. J., 145, 732, 735, 740
 Saludjian, P., 873, 885
 Salzman, N. P., 507
 Salzmann, J., 568
 Samaha, F. J., 580, 603
 Sambray, R. Y., 151
 Sambray, Y. M., 148, 150, 151
 Sambrook, J., 387, 506, 509
 Samejima, T., 524
 Samejima, Y., 148, 149
 Sampson, E. L., 732
 Sampson, W. L., 192
 Samson, L., 829
 Samuel, O., 674
 Samuels, G. M. R., 169
 Samuels, H. H., 531
 Samuelsson, B., 162, 163, 164, 165, 166, 167
 Sanadi, D. R., 99, 106, 107
 Sanbar, S. S., 706, 721
 Sand, D. M., 131
 Sandberg, L. B., 640, 641, 651, 690
 Sandeen, G., 256, 260
 Sander, C., 240
 Sander, S., 207
 Sandermann, H., 735, 746, 747
 Sanderson, A. R., 693
 Sandlin, R., 860
 Sandstead, H. M., 114
 Sandström, J., 878
 Sanger, F., 383, 387
 Sängler, H. L., 473
 Sanli, B. P., 99
 Sanner, T., 46
 Sano, K., 31, 43, 49
 Sansone, G., 131
 Santato, M., 859
 Santi, D. V., 271, 439, 797
 Santi, R., 169
 Santos, I., 98
 Sanwal, B. D., 34
 Sapico, V., 31
 Sapor, M. L., 210, 213
 Sarabhai, A. S., 380, 381
 Sarcos, L. E., 360, 361, 365
 Sarif, M., 211, 221
 Sargent, J. R., 131, 132
 Sargent, P. B., 946, 947
 Sarkar, N., 488
 Sarkar, S., 488, 579, 580
 Sarko, A., 959
 Sarma, P. S., 367
 Sarma, V. R., 817, 837
 Sarngadharan, M. G., 852
 Sarre, O. Z., 973
 Sartirana, M. L., 351
 Sartorelli, L., 595
 Sarvas, M., 796, 802
 Sarzala, M. G., 144, 145
 Sasada, Y., 962
 Sasisekharan, V., 255, 870, 871, 873, 874, 878
 Sastry, K. S., 111
 Sastry, P. S., 154
 Sasvari, K., 963
 Sata, T., 721, 722
 Satchell, D. P. N., 36
 Sato, K., 56, 80, 153
 Sato, N., 345, 366
 Sato, R., 735
 Sato, S., 32, 449, 946
 Sato, T., 524, 972
 Sauer, G., 509
 Sauer, R. M., 115
 Sauerberg, M., 355
 Sauls, H. S., 545, 552, 556
 Saunders, G., 378, 400
 Saunders, G. W., 364, 365
 Saunders, M., 904
 Sauner, M.-T., 142, 145, 146
 Sauvard, S., 102
 Savage, J. E., 640
 Sax, M., 959
 Saya, D., 348
 Sayce, I. G., 34
 Scalfe, J., 410
 Scalfe, J. G., 265, 270
 Scally, B. G., 567
 Scandella, C. J., 735, 746
 Scanu, A. M., 703-30; 148, 704, 705, 708, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 722, 723, 725, 726
 Scarborough, G. A., 794
 Scarpa, J. S., 904, 912, 914, 915
 Scatchard, G., 849
 Scatturin, A., 892
 Schachter, D., 182
 Schachter, H., 695
 Schaechter, M., 327, 438
 Schaefer, K., 413
 Schaege, W., 106
 Schafer, J. A., 804
 Schäfer, K. P., 290, 334, 336, 354, 358, 357, 358, 420
 Schafer, T. W., 522
 Schaffhausen, B., 250, 252
 Schairer, H. U., 806
 Schaller, H., 302, 303, 305, 307, 310
 Schaller, K. H., 108
 Schapira, F., 545, 549, 551
 Schapira, G., 545
 Scharff, M. D., 474, 475, 476, 478, 479
 Scharrer, B., 640
 Schatz, G., 334, 348, 350, 353, 358, 359, 364
 Schaub, M. C., 586, 588
 Schauer, H., 682
 Schaub, H. W., 391, 394, 396, 397
 Schechter, B., 880, 892
 Schechter, I., 880, 892
 Scheele, C. M., 474
 Scheffler, I. E., 255, 257
 Scheinberg, I. H., 686, 689
 Scheit, K. H., 413, 964
 Schejter, A., 736
 Schekman, R., 311
 Schekman, R. W., 309, 310, 314
 Schell, J., 450, 459
 Schell, K. R., 523
 Schellman, C., 903
 Schellman, J. A., 257, 874, 879, 880, 882, 887, 890, 903, 917
 Schenkein, J., 691
 Scher, W., 204
 Scheraga, H. A., 254, 256, 257, 870, 871, 872, 873, 874, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 889, 890, 892, 910, 911, 918
 Scherphof, G. L., 135, 139, 146, 147
 Schiano, N., 708
 Schieffer, H.-G., 142, 145
 Schiffer, M., 817, 838
 Schildeknecht, H., 697
 Schildkraut, C., 241, 243
 Schilling, W. H., 193
 Schimke, R. N., 547
 Schimke, R. T., 32, 546, 740
 Schimmel, P. R., 874, 877, 881
 Schimmelpfening, K., 355
 Schirmer, I., 46
 Schirmer, R. H., 46
 Schjeide, O. A., 205
 Schiebusch, H., 626
 Schleich, T., 243, 870, 874, 889, 913
 Schleif, R., 272, 411, 439, 797
 Schleif, R. F., 415, 416, 433, 434
 Schlenk, H., 131

- Schlesinger, R. W., 475
 Schlessinger, D., 379, 383, 394, 402
 Schleyer, M., 627
 Schlicht, M., 323
 Schlichtkrull, J., 105
 Schliselfeld, L., 597
 Schlossman, S. F., 248
 Schlueter, R. J., 657
 Schmid, H. H. O., 131, 132, 133, 135
 Schmid, K., 675, 681, 696
 Schmidt, D. A., 427
 Schmidt, E. G., 106
 Schmidt, G. M. J., 878
 Schmidt, J. P., 536, 537
 Schmitt, F. O., 627, 630, 754
 Schmitt, H., 348, 349
 Schmuell, U., 873, 874
 Schnaitman, C. A., 474, 740, 746
 Schnebli, H. P., 735
 Schneck, L., 561
 Schneck, S. A., 558
 Schneider, A. B., 270
 Schneider, A. L., 654
 Schneider, A. S., 546, 748
 Schneider, E. L., 561
 Schneider, F. H., 930, 931
 Schneider, H. P. G., 171
 Schneider, J. A., 552, 557
 Schneider, M. J. T., 748
 Schneider, P. B., 547, 552, 555
 Schneider, P. W., 35
 Schneider, R. P., 795
 Schneider, W. C., 145
 Schneider, W. P., 161, 162, 165, 166
 Schneider, Z., 66
 Schneiderman, L. J., 191
 Schnieden, H., 108
 Schnoes, H. K., 172, 180
 Schnöds, M., 257, 306, 314, 315, 317, 318, 324, 480
 Schoenborn, B. P., 816
 Schoepf, E., 99
 Schoffeniels, E., 17
 Schofield, J. D., 640
 Schofield, J. G., 168, 171
 Scholler, J., 187
 Scholnick, H. R., 705
 Scholtissek, C., 474
 Schonne, E., 534
 Schor, M. T., 735, 740
 Schori, L., 337
 Schrager, J., 691, 692, 693
 Schramm, G., 578
 Schrauzer, G. N., 60, 63, 64, 65, 73, 79, 82, 83, 84
 Schray, K. J., 989
 Schreir, M. H., 402
 Schretlen, A. M., 545
 Schrödinger, E., 22
 Schroeder, H. A., 108, 114
 Schroeder, H. R., 975
 Schroeder, R., 871
 Schroeder, W. A., 627
 Schroenloher, R. E., 627
 Schröter, W., 546
 Schubert, D., 690
 Schubert, W. K., 561, 565, 566
 Schuffman, S. S., 110
 Schuller, S. E., 763
 Schulman, J. D., 545, 550, 552, 557, 559, 560
 Schulman, J. H., 186, 758
 Schulman, M., 84
 Schultz, J., 334
 Schultz, J. R., 162
 Schultz, S. G., 778, 794, 804
 Schultze, M. O., 92
 Schulz, K. H., 99
 Schulze, I. T., 41, 474, 738
 Schumaker, V. N., 704, 714, 720
 Schumann, H. J., 932
 Schuster, H., 323
 Schutgens, R. B. H., 334, 336
 Schütte, A., 318
 Schuurmans, S. F., 99
 Schwab, A. J., 359
 Schwartz, A. G., 566
 Schwartz, D., 270, 431
 Schwartz, G. P., 32
 Schwartz, I. L., 873
 Schwartz, J. H., 791
 Schwartz, M., 313, 422
 Schwartz, R. H., 562
 Schwarz, G., 870, 873, 882, 883, 884, 885, 887, 891
 Schwarz, K., 184, 188
 Schweiger, M., 289, 414, 418, 419
 Schweizer, E., 334, 346
 Schwenk, A., 545
 Schweyen, R., 359
 Schwieter, U., 185
 Schwyzler, R., 873, 878
 Scibienski, E., 453
 Scocca, J., 696
 Scoffone, E., 873, 884, 892
 Scolnick, E., 382
 Scopes, R. K., 31, 32, 46
 Scott, A. W., 519
 Scott, C. R., 545, 547
 Scott, J. M., 692
 Scott, M. L., 182, 183, 184, 187
 Scott, R. A., 873, 880
 Scott, R. D., 619, 622, 623
 Scott, S., 180
 Scott, W. A., 684
 Scott, W. E., 961
 Scragg, A. H., 348, 349, 359, 361
 Scrimgeour, K. G., 79
 Scriven, C. R., 543, 545, 552, 557, 558, 564, 778, 783, 784, 786
 Scruggs, R. L., 240
 Scully, K. J., 546, 548
 Seaman, G. V. F., 761, 762
 Seaman, M. P., 562
 Seans, D. F., 769
 Searls, R. L., 106
 Sebald, W., 348, 359
 Sebek, O. K., 975
 Sebrell, W. H., 186
 Sebring, E., 507
 Secchi, G. C., 109, 110, 113
 Séchaud, J., 485, 486
 Seck, J. A., 64, 65
 Secrist, J. A. III, 860
 Sedat, J. W., 416, 417
 Sederoff, R., 427
 Seegmiller, J. E., 543-76; 545, 546, 547, 548, 549, 550, 552, 557, 559, 563, 564, 565, 567, 568
 Seelg, J., 873
 Seeman, N. C., 962, 965
 Seeman, P., 732, 734, 745, 746, 747
 Segal, D. M., 581, 870, 892, 903, 912, 916, 919
 Segal, S., 545, 547, 549
 Segal, S. J., 204, 205, 207, 208, 210, 213
 Segel, I. H., 794
 Segrest, J. P., 626, 640, 676, 677, 740, 742
 Segsneider, I., 102
 Seibl, J., 63
 Seidel, D., 721
 Seidel, J. C., 597, 598
 Seifert, W., 411, 416, 428, 429
 Seifter, S., 617-72; 618, 627, 640, 655, 657, 658, 660, 882
 Seiler, H., 304
 Sekellick, M. J., 535
 Sekeris, C. E., 223
 Sekhar, N. C., 171
 Sekine, H., 260
 Sekizawa, Y., 57
 Sela, M., 870, 880, 884, 885, 890, 891, 892
 Seliger, H. H., 848
 Seln, D., 857
 Selinger, A., 604
 Selliskar, C. J., 845, 846, 847

- Selmi, G., 116
 Selwyn, M. J., 102
 Selye, H., 102
 Semeniza, G., 984, 985
 Sempio, C., 107
 Sen, A. U., 745
 Senda, N., 609
 Seng, R., 148, 149, 150, 151
 Senior, A. E., 736, 739
 Senior, B. W., 393
 Sennitt, M. V., 189
 Sentandreu, R., 674, 675
 Sentenac, A., 288
 Serafini-Fracassini, A., 640
 Seraydarian, J., 589, 594, 603
 Serenius, F., 102
 Sessa, G., 760, 763, 764, 765, 767, 770
 Setlow, B., 46
 Setlow, R. B., 547
 Seto, K., 131
 Seto, S., 946
 Seufert, W. D., 755
 Sgararella, V., 311
 Shaban, M., 685
 Shacklette, H. T., 102, 103
 Shadur, C. A., 785, 786
 Shafranovskaya, N. N., 258
 Shah, D. B., 309
 Shah, D. V., 197
 Shaikin, R., 674, 679, 684
 Shakespeare, P., 359
 Shalatin, C., 483, 484, 486
 Shallenberger, R. S., 982
 Shapira, R., 737
 Shapiro, A. L., 740
 Shapiro, B. M., 740, 746
 Shapiro, D., 488, 545, 552
 Shapiro, J., 271
 Shapiro, J. T., 242, 249, 250, 251
 Shapiro, L., 259
 Shapiro, S., 795
 Sharma, O. K., 205
 Sharma, V. S., 109
 Sharp, G. W. G., 169, 170
 Sharpe, T. J., 537
 Shatkay, A., 249
 Shatkin, A. J., 474
 Shatsky, I. N., 397
 Shaw, E. R., 732
 Shaw, J. E., 162, 163, 168, 169, 171
 Shcherbak, I. F., 116
 Sheaff, E. T., 532
 Shearer, L., 546, 552, 555
 Shechter, E., 857, 873, 879, 892
 Sheehan, G., 141, 142, 146
 Shefter, E., 965
 Sheinblatt, M., 878
 Sheir, G. I., 364
 Shelanski, M., 610
 Shelanski, M. L., 608
 Sheldrick, P., 286, 411, 421
 Shelton, E., 609
 Shemin, D., 111
 Shemyakin, M. M., 759, 766
 Shen, M. S., 963
 Shephard, E. H., 144
 Shepherd, A. M., 108
 Sheppard, D., 411, 438, 439
 Sheppard, H., 171
 Sheppard, R. C., 881
 Shepro, D., 609
 Sheridan, M. N., 929
 Sherman, M. R., 215, 216, 217, 218, 219, 221
 Sherman, W. R., 971, 982
 Sherr, C. J., 691
 Shibaoka, T., 985
 Shibata, N., 609
 Shilnev, V. A., 892
 Shields, G. S., 640, 654
 Shier, W. T., 681, 685
 Shifrin, S., 788
 Shigekawa, M., 594
 Shih, T. Y., 250, 252
 Shih, V. E., 560
 Shih, Y., 207, 208, 218
 Shilo, I., 31, 43, 49
 Shimada, A., 693
 Shimada, W., 651
 Shimadate, T., 106
 Shimanouchi, H., 962
 Shimanouchi, T., 873
 Shimizu, A., 679
 Shimizu, M. J., 106
 Shimizu, S., 56, 65, 80
 Shimizu, T., 597
 Shimizu, Y., 964
 Shimojo, T., 140
 Shin, Y. A., 242
 Shinagawa, H., 781
 Shindo, Y., 887
 Shinitzky, M., 858
 Shinkarenko, A. L., 116
 Shinomura, Y., 105
 Shio, H., 165, 171
 Shiono, R., 964
 Shiraki, M., 880
 Shiratori, I., 736
 Shiratori, T., 705, 713
 Shiro, M., 972
 Shive, W., 380
 Shleser, R., 476
 Shmerling, Zh. G., 354
 Shohet, S. B., 146, 151, 152
 Shooter, E. M., 733, 737
 Shope, R. E., 520
 Shore, B., 708, 709, 710, 716, 719, 720, 723
 Shore, V., 708, 709, 710, 716, 719, 720, 723
 Shoreinstein, R., 435, 436
 Shorey, R. L., 380
 Short, S., 805
 Shortle, B. E., 238, 286
 Shotton, D. M., 660, 816
 Showe, M., 481, 484
 Shugart, L. R., 351
 Shulman, N. R., 171
 Shulman, R. G., 34, 35, 823
 Shults, W. D., 94
 Shunk, C. H., 187
 Shuster, C. N. Jr., 107
 Shuster, R. C., 319, 654
 Shyamala, G., 208, 210, 211, 221
 Siau, J., 190
 Sibert, J. W., 60, 63, 64, 82, 83, 84
 Sica, V., 214
 Siccardi, A. G., 740, 746
 Sidbury, J. B. Jr., 557
 Siddhikol, C., 411
 Siddiqui, B., 987
 Sidorenko, N. V., 260, 261
 Siebenberg, S., 114
 Siegel, F. L., 563
 Siegel, R. B., 418, 419, 420
 Siegel, R. C., 654, 662
 Siegenthaler, W., 161, 169
 Sieker, L. C., 816, 833, 834
 Sigal, N., 263, 264
 Sigal, N. H., 308
 Siggins, G. R., 169
 Sigler, P. B., 475
 Sigman, D. S., 660
 Sigman, M. B., 108
 Signer, E. R., 422, 425
 Sih, C., 164, 165
 Silber, M., 930
 Silber, R., 75
 Silberberg, D. H., 563
 Silberstein, A. Y., 766
 Silbert, D. F., 806
 Silen, K. G., 95
 Silman, H. I., 739, 870, 941
 Silman, I., 939, 940
 Silve-Mamy, G., 108
 Silverman, D. N., 873
 Silverman, J., 102
 Silverstein, E., 40, 41
 Silverstein, M. N., 552
 Silverstone, A. E., 433
 Silvertown, E. W., 816, 817, 837
 Silvertroni, A., 112
 Silvestri, L., 503
 Siminovitch, L., 479, 488,

- 489, 491
 Simkin, J. L., 691
 Simmonds, A., 564
 Simmons, E. L., 195
 Simmons, R. L., 112
 Simmons, R. M., 608
 Simon, E. H., 535
 Simon, E. J., 288, 791
 Simon, E. R., 740
 Simon, G., 754
 Simon, K., 963
 Simon, L. D., 480, 481, 487, 488
 Simon, M. I., 523
 Simoni, R. D., 778, 794, 799
 Simonis, A. M., 937
 Simons, E. R., 892
 Simons, K., 716, 717, 722
 Simpkins, H., 255
 Simplicio, J., 48
 Simpson, D. L., 697
 Simpson, L., 367
 Simpson, M. V., 345, 346, 910, 912, 921
 Simpson, R. B., 97
 Simpson, R. T., 248, 252
 Simpson, W. T., 879
 Sims, H. L., 538
 Sinclair, H. B., 984
 Sinclair, L., 546, 550
 Sinez, F. M., 653, 655
 Singer, J. J., 928
 Singer, M., 765, 766
 Singer, S. J., 741, 744, 748, 940
 Singer, T. P., 105, 148, 149, 150, 151
 Singh, A., 521
 Singh, J., 736
 Siniscalco, M., 568
 Sinohara, H., 687
 Sinsheimer, R. L., 263, 311, 314, 315, 316, 326, 327, 416, 417, 421, 425, 476, 477, 478, 492
 Sipe, J. D., 474
 Sippel, A., 412, 424
 Sisson, P., 145, 151, 152, 153
 Six, E. W., 421, 480
 Six, K. M., 168
 Size, J. G., 108
 Sjoerdsma, A., 547
 Skalka, A., 314, 421
 Skaug, K., 690
 Skerfving, S., 99
 Skinner, D. M., 334, 338
 Skipski, V. P., 142, 705, 713
 Sklar, J., 419, 430
 Skou, J. C., 734, 745
 Skoutchi, A., 384
 Slade, H. D., 785
 Slakey, P. M., 139
 Slayter, H. S., 580, 601
 Sleeter, R. T., 984
 Slocum, H., 453
 Slonimski, P. P., 338, 339, 340, 347, 361, 362, 364, 365
 Slotboom, A. J., 141, 147, 148, 149, 152, 153
 Slotta, K. H., 151
 Sluyterman, L. A. A., 816
 Sly, W. S., 326, 423
 Small, D. M., 755, 768
 Small, R. C., 108
 Small, W., 873
 Smart, E., 364
 Smart, J. E., 252
 Smart, N. A., 102
 Smellie, R. M. S., 204
 Smiley, J. D., 654
 Smillie, R. M., 334
 Smilowitz, H., 469
 Smit, E. M., 335, 337
 Smith, A., 113
 Smith, A. D., 930, 931, 932
 Smith, A. L., 736
 Smith, B., 654, 656
 Smith, C. A., 335, 343, 345, 366
 Smith, C. E., 245, 246, 342, 343
 Smith, D., 334, 346
 Smith, D. A., 278
 Smith, D. E., 205, 210, 211, 221
 Smith, D. J., 654
 Smith, D. W., 302, 310, 325, 640, 641
 Smith, E., 30, 39, 40, 42, 43, 46
 Smith, E. L., 79, 92, 105, 108, 252, 674, 682, 684, 695
 Smith, H. E., 880
 Smith, H. O., 292, 449, 450, 454, 456, 459, 461
 Smith, H. S., 508
 Smith, I., 958, 959
 Smith, I. C. P., 243, 972
 Smith, J., 449, 457
 Smith, J. B., 163, 168
 Smith, J. C., 108
 Smith, J. D., 144, 259, 339, 381
 Smith, J. L., 184, 187
 Smith, J. P., 108
 Smith, J. R., 187
 Smith, J. W., 163, 171, 640
 Smith, L., 720
 Smith, L. A., 630
 Smith, L. H. Jr., 546, 548
 Smith, M., 890
 Smith, M. E., 732
 Smith, M. W., 769
 Smith, P. N., 687
 Smith, R. A., 29
 Smith, R. E., 221
 Smith, R. M., 58
 Smith, S., 207, 208, 209, 210, 211, 214, 221
 Smith, T. A., 65
 Smith, T. F., 269, 270
 Smith, W., 165, 166
 Smith, W. J., 930
 Smith, W. L., 168
 Smith, W. S., 393, 394
 Smorodintsev, A. A., 537
 Smyrniotis, P. Z., 106
 Smyth, D. S., 675, 676, 677, 684
 Smyth, R. D., 56
 Snary, D., 692, 694
 Snihls, J. O., 102
 Snipp, R. L., 885, 886
 Snodgrass, G. J., 545, 548
 Snodgrass, P. J., 546, 550
 Snustad, D. P., 262
 Snyder, F., 130, 131, 132, 133, 134, 135, 142
 Snyder, L., 428
 Snyder, P. D., 987
 Snyder, R. L., 962
 Snyder, R. M., 474
 So, A. G., 281, 287, 288
 Soave, C., 338
 Sobell, H. M., 245, 246, 292, 817, 838, 964
 Sober, H. A., 248, 252
 Soderberg, B. O., 817
 Soderman, D. D., 32
 Sodhi, H. S., 711
 Sogin, M., 397, 433
 Sokal, J. E., 194
 Solbakk, J., 962
 Soldatovic, D., 116
 Söll, D., 972
 Sölna, J., 205
 Solomon, L. M., 168
 Solomons, C. C., 564
 Solomonson, L. P., 734, 745
 Sols, A., 41, 43, 49
 Somack, R. L., 70
 Sommer, B., 879
 Søndergaard, J., 168
 Sonenshein, A. L., 277, 435, 436, 437
 Sonenshein, G. E., 337
 Sonnabend, J. A., 533, 534, 535
 Sonnenbichler, J., 251
 Sorg, C., 880
 Sorger, G. J., 34
 Sorm, F., 972
 Sorokin, V. M., 148
 Sorrells, M. F., 138
 Soslau, G., 366
 Soto, E. F., 945
 Soukup, S., 561
 Soulier, J. P., 197

- South, M. S., 536
 Southern, E. M., 338, 341
 Southwick, J., 963
 Sowa, W., 981
 Sox, H. C., 679, 690
 Spach, G., 876, 879
 Spackman, D. H., 106
 Spaeth, T. H., 194
 Spaeth, G. L., 557, 559
 Spahr, P. F., 397
 Spandidos, D., 533
 Spandrio, L., 112, 114
 Spann, J. W., 102
 Sparks, R. A., 965
 Spatz, H. C., 315
 Speakman, J. C., 958
 Speakman, P. T., 630
 Spear, P. G., 474
 Spears, C., 59
 Specht, W., 109
 Spector, L. B., 41, 42, 43
 Spelsberg, T. C., 219, 220
 Spencer, J. F. T., 675, 677, 968
 Spencer, J. H., 286
 Spencer-Peet, J., 545
 Spener, F., 131
 Sperling, R., 97
 Spero, L., 857
 Speroff, L., 161, 163, 171
 Spiegelberg, H. L., 695
 Spiegelman, S., 433
 Spiegelman, W. G., 421, 422, 423, 424, 438
 Spik, G., 679
 Spinelli, F. R., 110
 Spinola, M., 685
 Spiridonova, V. A., 397
 Spirin, A. S., 403
 Spiro, M. J., 639, 691
 Spiro, R. G., 626, 637, 639, 640, 674, 683, 688, 690, 691
 Spittell, J. A. Jr., 194
 Spivack, M., 194
 Spooner, B. S., 610
 Sporn, A., 105, 106, 107, 108, 116
 Spraggins, R. L., 162
 Spranger, J. W., 548, 552, 556
 Spray, G. H., 57, 58
 Spreafico, F., 109
 Springell, P. H., 904, 907, 914, 920
 Sprinzel, M., 390
 Sprouse, H. M., 49
 Squires, C., 439
 Sreevalsan, T., 534
 Sreter, F. A., 579, 580, 591
 Srinivasan, P. R., 367, 414, 509
 Sroczynski, J., 109, 110, 111, 112
 Staal, G. E. J., 31
 Staar, R., 578, 590
 Stacey, K. A., 450, 459, 460
 Stacey, M., 979
 Stachnyk, O., 135
 Stadler, J., 143
 Stadtman, E. R., 61, 66, 67, 68, 84, 85, 784, 786
 Stadtman, T. C., 55, 60, 61, 62, 70, 71, 72, 80, 81, 82, 83, 101
 Staehelin, M., 411
 Staehelin, T., 381, 390, 402
 Stahl, F. W., 425, 481
 Stahl, M. M., 425, 481, 486
 Stahmann, M. A., 870
 Staley, R., 913, 916, 920
 Stamatoyanopoulos, G., 545, 549
 Stamenovic, B. A., 928
 Stampfer, M., 535
 Stanacev, N. Z., 144, 145
 Stanbrough, E. C., 75
 Stanbury, S. W., 180
 Stancek, D., 518
 Standberg, B., 97
 Standish, M. M., 755, 766, 769, 770
 Stanescu, C., 102
 Stankovic, M., 109, 110, 113
 Stanley, W. M. Jr., 387
 Sannard, B. S., 242, 249, 250
 Staprone, L., 589
 Starcher, B., 654
 Starcher, B. C., 657, 674
 Stark, G., 766
 Stark, M., 631, 633, 662
 Sarman, B., 416
 Stary, Z., 675
 Stasiuk, L., 261
 Stavis, R. L., 473
 Stavrianopoulos, J., 75, 76, 77
 Stead, N. W., 766
 Steck, T. L., 734, 740, 741, 742, 743, 744, 747
 Steers, E. Jr., 734, 740, 741
 Stefanac, Z., 367
 Steffen, K.-D., 879
 Steggle, A. W., 208, 209, 210, 212, 217, 219, 220
 Steigemann, W., 816
 Steigman, J., 880
 Steim, J. M., 708, 715, 769
 Stein, A. M., 104
 Stein, A. O., 546, 552, 555
 Stein, G., 324
 Stein, J. A., 112
 Stein, J. H., 104
 Stein, O., 147, 151, 153
 Stein, W. D., 778, 794, 804
 Stein, Y., 147, 151, 153
 Steinberg, D., 48, 547
 Steinberg, I. Z., 890, 891
 Steinberg, R., 272, 273, 274, 275, 421, 423, 424
 Steinemann, A., 763
 Steiner, A. L., 171, 172
 Steiner, P. R., 970
 Steiner, R. F., 843
 Steinwall, O., 102
 Seitz, J. A., 383, 473
 Seitz, T. A., 815, 816, 818, 913, 916
 Stejskal, E. O., 904
 Stellwagen, E., 31
 Stellwagen, E. C., 915
 Stellwagen, R. H., 252
 Stempel, K. E., 736
 Stenderup, A., 334, 339, 340
 Stenflo, J., 197
 Stephan, K. F., 108
 Stephani, R. A., 973
 Stephens, F. P., 937
 Stephens, R. E., 608
 Stephens, R. M., 891
 Stephenson, N. C., 962, 963
 Stermitz, F. R., 973
 Stern, A., 873, 878, 881
 Stern, J., 546
 Sternbach, H., 523
 Sternberg, M., 98
 Sternberg, N., 483
 Sternberger, L. A., 745
 Sternlicht, H., 34, 35
 Sternlieb, I., 689
 Steven, F. S., 690
 Stevens, A., 277, 429, 430
 Stevens, C. L., 258, 468, 249, 271, 921, 978
 Stevens, G. R., 706, 718
 Stevens, J. D., 962, 963
 Stevens, W. F., 315, 317, 319, 323
 Stevenson, P. E., 878
 Steward, D. L., 523
 Stewart, F. H. C., 892
 Stewart, J. M., 588
 Stewart, K. M., 545
 Stewart, P. J., 146, 147
 Stewart, P. R., 359
 Stewart, R. B., 532
 Stewart, W. E. II, 530, 532
 Stiller, E., 708, 709
 Stinebring, W. R., 519, 538
 Stirling, B. D., 536
 Stirling, J. L., 696
 Stirtz, T., 619, 623

- Stjerne, L., 932
 Stock, A., 102
 Stock, J., 805
 Stock, K., 170
 Stock, R., 857
 Stockmayer, W. H., 255, 876
 Stoddart, J. F., 954, 955
 Stoeckenius, W., 732, 735, 740, 747, 755
 Stoenescu, L., 105, 106, 107, 108
 Stoffel, W., 132, 133, 134, 142, 143, 145, 151, 152
 Stöffler, G., 386, 391, 392, 393, 395, 396, 398
 Stoffyn, P., 735, 737
 Stoichev, T., 102
 Stoker, M., 536
 Stokstad, E. L. R., 346, 546
 Stolkowski, J., 781
 Stollar, B. D., 523
 Stollar, D., 261
 Stollar, V., 474
 Stoltzfus, C. M., 478, 479
 Stone, D., 582
 Stone, D. B., 583
 Stone, G. M., 207, 208
 Stone, K. R., 483, 487, 490
 Stonington, O. G., 325, 433, 434, 438, 480
 Stoppant, A. O. M., 151
 Storck, R., 334
 Storrs, C. N., 546
 Stossel, T. P., 171
 Stott, A. N. B., 114
 Stotz, E., 736
 Stowring, L., 597, 598
 Strachan, I., 684
 Stracher, A., 578, 579, 580, 582, 598
 Strack, H. B., 421
 Strada, L., 109, 110
 Strahs, G., 960
 Strand, J. C., 162, 163
 Strand, M., 473
 Strandberg, B., 475, 476
 Strandberg, K., 162, 163
 Strassorier, L., 880
 Strassmair, H., 889, 891
 Strätling, W., 302, 303, 307, 310
 Straub, E., 102
 Strauss, J. H. Jr., 474, 494, 738
 Strauss, U. P., 240, 242
 Strawich, E., 627
 Strazielle, C., 873
 Strehlow, C. D., 114
 Streightoff, F., 537
 Streisinger, G., 486
 Sretton, A. O., 380, 381
 Strickland, E. H., 880
 Strickland, K. P., 140, 141, 144
 Stricks, W., 97
 Strigini, P., 400, 401
 Striker, G. E., 564
 Stringham, C. H., 983, 984
 Strisower, E. H., 720
 Strittmatter, P., 735
 Stroganov, N. S., 113
 Strohmman, R. C., 578, 579, 580
 Stromer, M. H., 589, 593, 594
 Strominger, J. L., 735, 746, 747
 Strong, C. G., 162
 Strydom, D. J., 151, 945
 Stryer, L., 843, 844, 847, 850, 853, 854, 855, 858, 890
 Stryker, V. H., 915
 Stuart, K. D., 362
 Stuart, R. N., 269
 Stubbe, J. A., 48
 Stuchell, R. N., 359
 Studier, F. W., 256, 479
 Stuehr, J., 907, 916
 Stuhlsatz, H. W., 682, 686
 Stuhne-Sekalec, L., 144, 145
 Stumpf, W. E., 207, 209, 210, 217, 221
 Sturani, E., 736
 Sturgeon, P., 545, 549
 Sturtevant, J. M., 257, 769
 Su, S., 31, 33, 40, 46
 Suarez, F., 474, 475, 507
 Suarez, H., 526, 527, 533
 Suarez, Z. M., 710, 711
 Subak-Sharpe, J. H., 565, 568
 Subbaiah, P. V., 153, 154
 Subrahmanyam, D., 152, 153
 Subrahmanyam, V., 105
 Subramanian, A. R., 382, 402, 535
 Subramanian, E., 964
 Suck, D., 964
 Suda, M., 105, 106
 Suda, T., 180
 Sudoh, R., 973
 Sue, F., 31, 32, 46
 Suelter, C. H., 34, 47, 49
 Sueoka, N., 302, 312, 314, 318, 321, 326
 Suetsugu, N., 985
 Sugahara, K., 680
 Sugai, S., 879
 Sugden, E. A., 599
 Sugden, P. H., 39
 Sugimoto, K., 302, 310
 Sugimoto, Y., 65
 Sugino, A., 302, 307, 310
 Sugura, M., 278, 281, 286, 287, 288, 289, 414, 416, 417, 418, 436
 Sugiyama, H., 886, 892
 Sugiyama, T., 472
 Suhadolnik, R. H., 74, 972, 978
 Sukeno, T., 680, 686
 Sukhenko, F. T., 106
 Sukowski, E., 261
 Sullivan, J. F., 92
 Sullivan, M. L., 706, 721
 Sultan, C., 115
 Summers, D. F., 474, 475, 476, 478, 479, 494, 496, 740, 745
 Summers, J., 508
 Summers, W. C., 277, 286, 418, 419, 420
 Sundaralingam, M., 255, 962, 963, 964, 965
 Suomela, J., 114
 Suskind, D., 334, 335, 337
 Suskind, S. R., 795
 Susman, M., 485
 Sussman, A. J., 778
 Sussman, J. L., 965
 Sussman, R., 334, 368
 Sutherland, B. M., 855
 Sutherland, E. M., 108
 Sutherland, E. W., 224, 431
 Sutherland, J. C., 855
 Suttajit, M., 697
 Suttie, J. W., 190, 191, 194, 195, 196, 197, 198
 Sutton, P. L., 873
 Sutton, W. B., 341
 Suyama, Y., 335, 336, 348, 349, 358, 359, 361
 Suzuki, E., 892
 Suzuki, F., 636
 Suzuki, H., 266, 267, 274, 275, 432
 Suzuki, K., 546, 552, 555
 Suzuki, K., 546, 552, 555
 Suzuki, S., 108, 976
 Suzuki, T., 101, 102, 103, 148, 149, 209, 211, 221
 Suzuki, Y., 102, 105, 546, 552, 555
 Svanborg, K., 162
 Svec, J., 521
 Svillane, A., 108
 Swaiman, K. F., 545, 552, 556, 563
 Swaminathan, N., 677
 Swan, J. G., 481, 488
 Swaneck, G. E., 223
 Swank, R. T., 364
 Swann, D., 675

Swanson, R. F., 348, 355
 Sweat, M. L., 207
 Swedberg, K. R., 545, 547
 Sweeley, C. C., 163, 565, 987
 Sweet, C., 763, 769
 Swenson, C. A., 910, 913, 983
 Swenson, R. M., 690, 691
 Swensson, A., 102, 103
 Swift, H., 334, 335, 337, 347, 348, 350, 351, 358, 359, 364, 367
 Swift, T. J., 35
 Swindlehurst, M., 75
 Switzer, S., 721
 Sy, D., 691
 Sykora, J., 108
 Symmonds, P., 585
 Symonds, N., 450, 459, 460
 Symons, A. M., 770
 Sypherd, P. S., 386
 Szabo, G., 766, 767
 Szadkowski, D., 108
 Szarek, W. A., 975
 Szego, C. M., 204, 221
 Szeinberg, A., 546
 Szendzikowski, S., 102
 Szent-Gyorgyi, A. G., 581, 582, 589, 590, 592
 Szentkiralyi, R. M., 601
 Szlamka, I., 98
 Szmuliewicz, S., 973
 Szulmajster, J., 436
 Szustkiewicz, C., 855
 Szybalski, W., 239, 277, 286, 317, 411, 418, 419, 421, 422

T

Tabak, H. F., 354
 Tabakoff, B., 132
 Tabor, H., 247
 Tachibana, S., 108
 Tada, K., 547, 557, 559
 Tada, M., 594
 Tager, H. S., 787
 Taggart, W. V., 191, 192
 Taguchi, T., 108
 Tai, H., 164
 Tai, H. T., 508
 Taigel, G., 980
 Tajiri, A., 873
 Takada, F., 108
 Takagi, S., 962
 Takagi, Y., 367, 456
 Takahama, K., 98
 Takahashi, H., 102
 Takahashi, I., 435
 Takahashi, N., 680
 Takahashi, S., 660
 Takahashi, T., 131, 132, 133
 Takaiti, O., 589, 591

Takamiya, A., 736
 Takamoto, T., 973
 Takanami, M., 278, 281, 286, 287, 288, 289, 379, 381, 402, 414, 416, 417, 418, 436
 Takano, T., 449, 453, 454, 829
 Takashima, S., 881
 Takashina, H., 598, 860
 Takata, R., 392, 490, 491
 Take, S., 343, 345
 Takeda, M., 904
 Takeda, Y., 419, 425
 Takeguchi, C., 164, 165
 Takeuchi, A., 934, 935, 936, 937
 Takeuchi, N., 936, 937
 Takeuchi, T., 633
 Takita, T., 976
 Tal, M., 396, 893
 Talbot, P., 738, 746
 Talmidge, R., 111
 Talwar, G. P., 207, 208, 210, 213
 Tamaki, M., 392
 Tamao, Y., 56, 65, 72, 74
 Tamaoki, T., 382, 392
 Tamburin, H. J., 873
 Tamburro, A. M., 892
 Tamiya, N., 636, 684, 945, 946
 Tamm, L., 474, 493, 494
 Tamm, R., 185
 Tan, A. T., 104
 Tan, B. H., 97
 Tan, Y. H., 521, 531, 536
 Tanaka, K., 392
 Tanaka, M., 892
 Tanaka, R., 764
 Tanaka, S., 212, 214, 871, 875, 876, 877, 878
 Tanaka, T., 31, 32, 46
 Tanaka, Y., 180
 Tanford, C., 740, 741, 875, 877, 882, 918, 919, 920
 Tani, H., 892
 Taniguchi, M., 584
 Taniguchi, H., 261
 Tanaka, M., 606
 Tanzer, M. L., 631, 632, 642, 653, 654, 655, 656, 657, 658, 659
 Tao, M., 31, 49
 Tao, T., 380, 381, 431, 855
 Tappel, A. L., 184, 189, 553
 Tardieu, A., 711, 714, 726
 Tarentino, A., 680, 684, 686
 Tarien, E., 241
 Tarlov, A., 146
 Tarnoff, J., 171
 Tarver, H., 57, 58
 Tasaki, I., 843, 860
 Tashjian, A. H. Jr., 565
 Tata, J. R., 204, 222
 Tatsumi, N., 609
 Taucins, E., 108
 Taurro, P., 334, 346
 Tavale, S. S., 964
 Tavaststjerna, M. G., 733, 735, 737
 Tawada, K., 583
 Taylor, A. L., 316, 320
 Taylor, A. N., 179-202; 783
 Taylor, A. R., 759
 Taylor, D., 538
 Taylor, E. W., 577-616; 594, 598, 601, 605, 608, 609, 610, 714, 716, 717, 726, 744
 Taylor, J., 533, 534, 759, 770
 Taylor, J. D., 191
 Taylor, J. J., 538
 Taylor, J. S., 33, 45
 Taylor, N. F., 969, 977
 Taylor, R. T., 75, 76, 77, 78, 79, 80
 Taylor, R. W., 207
 Taylor-Papadimitriou, J., 533, 536
 Taysi, K., 548, 561
 Teale, F. W. J., 843
 Tecce, G., 364, 365
 Tedesco, T. A., 545, 547, 549, 551
 Tegtmeyer, P., 475, 504, 505
 Teich, N., 512
 Teitelbaum, H., 903-24
 Tejasen, P., 149
 Temin, H. M., 510, 511
 Temple, J., 589
 Temple, T. E., 114
 Templin, A., 308
 Tenenbaum, D., 735, 737
 Tenenhouse, A., 170
 Teng, C. S., 204, 205, 209
 Teodorescu, C., 109
 Teodorescu, M., 102
 Teorell, T., 753, 758
 Teplitz, M., 342, 343
 Teral, M., 102
 Teramoto, A., 884, 885, 886
 Teramoto, E., 892
 Teraoka, A., 98, 392
 Terbojevich, M., 880, 884
 Terece, T. M., 546
 Terenius, L., 207, 208
 Terheggen, H. G., 545
 Terhorst, C. P., 397, 398
 Terragno, N. A., 162,

- 163, 169
 Terry, W. D., 817, 837
 Ter Schegget, J., 144, 319, 344, 345, 346, 366
 Terzaghi, E., 489, 490
 Tessier, P. M., 326
 Tessman, E. S., 476
 Tessman, I., 476
 Tettamanti, G., 682
 Thach, R. E., 383, 384
 Thammana, P., 398
 Thang, M. W., 413
 Thayer, S. A., 206, 222
 Theiner, M., 586
 Theorell, H., 817
 Thesleff, S., 938, 946, 948
 Thewalt, U., 964
 Theysohn, R., 879
 Thibault, J., 396
 Thiern, N. V., 31
 Thierry, M. J., 191
 Thiéry, J., 938
 Thies, R., 934
 Thind, G. S., 108
 Thoa, N. B., 935
 Thoai, N. V., 31, 32, 39, 40, 42, 43, 45, 46, 48
 Thomas, B. S., 154
 Thomas, C. A. Jr., 234, 237, 270, 311, 319, 418, 419, 438, 480, 481
 Thomas, D. B., 675, 684
 Thomas, D. R., 163
 Thomas, G. H., 217
 Thomas, J., 653, 654, 658, 795, 796
 Thomas, J. A., 108, 115
 Thomas, M., 538
 Thomas, N. S. T., 609
 Thompson, C. J., 163, 167
 Thompson, E. B., 531
 Thompson, G. A. Jr., 120, 130, 132, 133, 147
 Thompson, G. G., 115
 Thompson, J., 786, 805
 Thompson, J. H. Jr., 194
 Thompson, J. N., 184
 Thompson, M. F., 32, 40, 41
 Thompson, R. H. S., 96
 Thompson, T. E., 759, 766
 Thompson, W., 142, 143, 852
 Thompson, W. F., 767
 Thompson, W. W., 140
 Thomson, A. J., 849
 Thomson, A. R., 31, 32, 44, 45
 Thomson, R. M., 92
 Thorén, L., 207
 Thoren, M., 507
 Thorne, G. M., 793
 Thorne, J. W., 31
 Thrierr, J. C., 255
 Thun, K. J., 207
 Thuring, R. W. J., 365
 Thwaites, W. H., 794
 Tiboni, O., 348
 Tice, L. W., 109
 Tichauer, Y., 414
 Tieffenberg, M., 766
 Tien, H. T., 754, 758, 759
 Tiers, G. V. D., 904, 909
 Tiffany, J. M., 494
 Tiffany, M. L., 880
 Tikchonenko, T. I., 480
 Tilander, B., 97
 Tildon, J. T., 546
 Tillack, T. W., 734, 740, 744
 Tillander, M., 103
 Tilmann, K., 113
 Tilney, L. G., 609, 744
 Timasheff, S. N., 340, 364, 879, 890
 Timpl, R., 627, 652, 662, 734, 740, 741
 Tinberg, H. M., 186
 Ting, H. D., 769
 Tinker, D. O., 148, 149
 Tinoco, I. Jr., 237, 524, 879
 Tinoco, J., 141, 142, 146
 Tipson, R. S., 954
 Tipton, I. H., 108
 Tipton, K. F., 49
 Tischler, B., 562
 Tisdale, H., 149, 150, 151, 736
 Tishler, M., 192
 Tlssieres, A., 280, 379, 385, 394
 Titchener, E. B., 351
 To, C. M., 487, 488
 Tocantins, L. M., 191
 Tocchini-Valentini, G. P., 411
 Todaro, G. J., 509, 514
 Todd, H., 168
 Todd, J. D., 537
 Toews, C. J., 41
 Toft, M., 637
 Toft, D. O., 209, 210, 211, 212, 215, 216, 217, 218, 219, 221
 Toga, T., 962
 Togasawa, Y., 106
 Tokoro, Y., 662
 Tokuno, S., 504
 Tokuyama, K., 425
 Tolbert, W. R., 393, 394
 Toliver, A., 318
 Tollin, P., 964
 Tomarelli, R. M., 687
 Tomikawa, M., 690
 Tominata, K., 105
 Tomita, K., 164, 165
 Tomita, K. I., 524
 Tomita, S., 904
 Tomizawa, J., 257, 262, 313, 317, 327, 486
 Tomkins, G. M., 531
 Tomlinson, B., 873
 Tompkins, R., 382
 Toms, G. C., 697
 Tondeur, M., 545, 552, 554, 556
 Tonegawa, S., 478, 509
 Tonelli, A. E., 873, 874, 878, 880, 881, 882
 Toniolo, C., 891
 Tonney, N., 879
 Tonolo, A., 520
 Tonomura, K., 101, 102
 Tonomura, Y., 589, 594, 605
 Toom, P. M., 148, 149, 150
 Tooze, J., 503
 Topaly, V. P., 766
 Toraya, T., 65
 Torchia, D. A., 880, 890, 891
 Toro-Goyco, E., 713
 Torres, H. N., 415, 416
 Torsvik, H., 722
 Tosteson, D. C., 759, 766, 778
 Toth, J., 708, 709
 Totsuka, T., 609
 Tougaard, P., 964, 965
 Towers, N. H., 350
 Townsend, L. B., 972
 Toyama, S., 450
 Toyoshima, K., 512, 513
 Trabert, U., 151, 152
 Trachewsky, D., 204
 Trager, W. F., 193
 Traub, P., 386, 387, 388, 389, 390, 391, 396, 399, 401
 Traub, W., 618, 623, 870, 873, 874, 882, 892
 Traut, R. R., 380, 385, 386, 392, 398, 402
 Trautner, T. A., 315
 Travaglini, E. C., 334
 Travers, A. A., 277, 278, 286, 287, 288, 410, 412, 413, 415, 416, 417, 427, 428, 429, 433, 434
 Travis, D. F., 657
 Trayer, H. R., 740, 741
 Trayer, I. P., 582
 Treble, D. H., 130, 142
 Tregear, R., 603
 Treistad, R., 627, 628, 630
 Trembath, M. K., 364, 365
 Trembley, G. Y., 327, 438
 Trentham, D. R., 97, 983, 989
 Trehella, M. A., 139
 Trifaro, J. M., 931
 Trifonov, E. N., 244, 254, 257, 258, 259, 260

- Trijbels, J. M. F., 545
 Tristram, G. R., 618, 640
 Trivelli, L. A., 674
 Trojanowska, B., 97,
 102
 Tromans, W. J., 476
 Trotta, P. P., 580, 598
 Trotter, C. D., 289, 414, 418,
 419
 Trotter, I. F., 873
 Troup, S. B., 194, 196
 Trown, P. W., 538
 Troxell, T. C., 873, 879, 880,
 881, 884
 Trpinac, P., 109
 Trueblood, K. N., 965
 Truffa-Bachi, P., 31, 32, 46,
 48, 49
 Trukula, D., 504
 Trundie, D., 31
 Trunova, O. N., 102
 Truong, H., 210, 213
 Truter, M. R., 766
 Tryphonas, L., 102, 115
 Tsai, L., 60, 61, 62, 70
 Tsai, M.-J., 354, 364,
 365
 Tschesche, R., 975
 Tschudy, D. P., 112, 550
 Tseng, L. F., 946
 Tsetlin, V. I., 873, 881
 Tsiganos, C. P., 682, 683
 Ts'o, P. O. P., 240
 Tsong, T. Y., 769
 Tsuboi, M., 249
 Tsuda, Y., 70, 72
 Tsugita, A., 490, 491, 676
 Tsukada, Y., 732
 Tsukagoshi, N., 808
 Tsukatani, H., 162
 Tsukuda, Y., 964, 972
 Tsuru, D., 106
 Tsuruoka, T., 973
 Tsvetkova, R. P., 108
 Tterlikkis, L., 879
 Tu, A. T., 34, 35, 148, 149,
 150, 945
 Tu, J.-I., 988
 Tuan, D., 252
 Tulinsky, A., 816
 Tung, Y., 938
 Tunis, M.-J. B., 243
 Turini, P., 148, 149
 Turkeltaub, N., 893
 Turkington, R. W., 49
 Turner, D. C., 844, 845, 847,
 850
 Turner, D. L., 675
 Turner, J. R., 363, 791
 Turolia, A., 873, 884, 885,
 886
 Turoverov, K. K., 843
 Tuttle, L. C., 16
 Tuttle, R. W., 878
 Tveter, K. J., 223
 Tyler, A., 337
 Tymoczko, J. L., 223
- Tyrrell, D. A. J., 494,
 537
 Tytell, A. A., 519, 520,
 521, 522, 523, 532, 537
 Tzagoloff, A., 359, 736
- U
- Uchida, M., 105
 Udenfriend, S., 111, 632,
 634, 635, 636, 637, 638,
 682, 684, 843
 Udo, N., 98
 Uematsu, T., 972
 Uesugi, S., 734, 745
 Uetake, H., 450
 Uff, B. C., 976
 Uhlenbruck, G., 682
 Uhlendorf, B. W., 59, 60,
 80, 83, 545, 547, 554,
 557, 558, 560, 561, 987
 Uhr, J. W., 691
 Uhr, M. L., 47
 Ui, H., 205, 208
 Ukita, T., 102
 Ulfvarson, U., 102, 103
 Ullberg, S., 103
 Ullman, R., 873, 879
 Ullmann, A., 431
 Ulmer, D. D., 91-128; 92,
 105, 109, 110, 111, 112,
 116, 921
 Ulsamer, A. G., 732
 Umani-Ronchi, A., 63
 Umbarger, H. E., 788
 Umeda, M., 102
 Umezawa, H., 411, 976
 Umezawa, S., 976
 Umrikhina, N. V., 97
 Underdown, B. J., 689
 Ungers, G., 324
 Unhjem, O., 205, 223
 Uniyal, J. P., 208
 Unsöld, H. J., 779, 796,
 802
 Upholt, W. B., 335
 Uptis, V., 107
 Ura, T., 411, 433
 Urata, G., 112
 Urban, J., 107
 Urban, J. E., 321, 322
 Urbina, J., 769
 Urry, D. W., 873, 879,
 880
 Ushiyama, R., 367
 Utermann, G., 722
 Uthe, J. F., 149, 150,
 151
 Utiger, R., 172
 Utiyama, H., 235,
 259
 Utsumi, K., 859
 Utsumi, S., 675, 676,
 684
 Utz, C. L. L., 545
 Uyeda, K., 31, 42, 43, 46,
 49
- V
- Vaciago, A., 975
 Vagelos, P. R., 137, 138,
 674, 806
 Vainio, H., 859
 Valdmantis, A., 108
 Vale, W., 171
 Valentine, R. C., 473, 475,
 837, 854
 Valentine, W. N., 543, 546,
 547
 Valeur, B., 860
 Vallee, B. L., 91-128; 92,
 96, 97, 104, 105, 106, 107,
 109, 110, 111, 112, 116
 Van Baak, M. A., 144, 345
 van Beek, W. P., 769
 Van Bruggen, E. F. J., 335,
 336, 339, 340, 344, 345,
 346, 365
 Van Dam, K., 746
 Van Deenen, L. L. M., 135,
 139, 140, 141, 144, 145,
 146, 147, 148, 149, 150,
 152, 153, 740, 765, 767,
 769, 770
 Van Den Berg, C. J., 180
 Van den Bos, R. C., 350
 Van Den Bosch, H., 137, 141,
 144, 153, 345
 Van den Hamer, C. J. A.,
 689
 Vandenheede, J., 676,
 681
 Vanderberg, J., 538
 Van der Eb, A. J., 342, 343
 Vanderheyden, I., 207,
 213
 Vanderkooi, G., 873, 874,
 878, 880
 Vanderkooi, J. M., 857
 van de Sande, J. H., 311
 VanDewark, S. D., 218
 Vandlen, R. L., 816
 Van Dorp, D. A., 163, 164,
 165
 Van Duin, J., 389, 391, 398,
 399
 Van Dyke, K., 855
 Vane, F., 163
 Vane, J. R., 162, 163, 168,
 169
 van Eys, J., 547
 Van Frank, R. M., 519,
 520
 Van Golde, L. M. B., 135,
 139, 140, 141, 144, 145,
 146, 153
 van Heeswijk, P. J., 545
 Van Holde, K. E., 255,
 393
 Van Hoof, F., 545, 552,
 554
 Van Itallie, T. B., 186
 Van Knippenberg, P., 398,
 399

- Van Lear, G. E., 978
 van Leenwenhock, A., 101
 Van Milligen-Boersma, L., 31
 van Munster, P. J. J., 545
 van Pel, A., 450
 Van Rapenbusch, R., 31, 46
 Van Rotterdam, J., 338
 van Sande, M., 545
 van Vloten-Doting, L., 473
 Van Vunakis, H., 163
 Van Winkle, Q., 244
 Vapnek, D., 313
 Varmus, H. E., 512
 Varshavskii, Ya. M., 907
 Vary, M. J., 359
 Vasconcelos, A. C. L., 349
 Vasington, F. D., 789
 Vassar, P. S., 762
 Vassella, F., 553, 556
 Vaughan, M., 171, 172
 Vaughan, W. M., 849
 Vaz Ferreira, A., 930
 Vazquez, D., 381, 402
 Veath, M. L., 545, 552, 555
 Veeger, C., 31, 109
 Veis, A., 249, 618, 619, 622, 623, 624, 625, 657, 878
 Veissiere, D., 721
 Velicer, L. F., 476
 Velick, S. F., 854
 Velluz, L., 879
 Veltkamp, J. J., 197
 Venable, J. H., 251
 Venable, J. Jr., 251
 Venchikov, A. I., 93
 Venkatachalam, C. M., 870
 Venkataraman, S., 57
 Veomett, G. E., 307
 Verbovolich, V. P., 109, 110
 Verdini, A. S., 870, 873
 Vergnano, C., 110, 112, 114, 115
 Verhagen, J., 151
 Verheyden, J. P. H., 978
 Verity, M. A., 98
 Verma, G. S., 107
 Verma, H. N., 107
 Verma, I. M., 348
 Vernon, C. A., 148
 Vernon, L. P., 732
 Verres, C., 481, 487, 488
 Vertes, M., 207
 Verwey, E. J. W., 761
 Vesco, C., 347, 348
 Vesell, E. S., 194
 Vesugi, S., 780
 Veyrières, A., 981
 Vick, J. A., 151
 Victor, T. A., 873
 Vidal, J. C., 151
 Vidaver, G. A., 804
 Vidler, J., 108
 Viehhauser, G., 342, 357
 Vielmetter, W., 318
 Vigdahl, R. L., 171
 Vigersky, R., 212, 220
 Vigier, P., 367, 510
 Vigilani, E. C., 108
 Viglino, P., 890
 Vignais, P. M., 145, 151, 154
 Vignais, P. V., 154
 Vignal, M., 526, 527, 533
 Vihko, V., 110, 113
 Viikari, J., 705
 Vijayendran, B. R., 243
 Vilcek, J., 521, 523, 528, 530, 531, 532, 533, 534, 536, 538
 Villa, V., 348, 349, 357, 358
 Villa, V. D., 334
 Villee, C. A., 205, 207, 211, 212, 220, 221
 Vincent, P. C., 113
 Vink, J., 971
 Vinograd, J., 245, 319, 335, 337, 338, 342, 343, 344, 345, 366
 Vinogradov, A. P., 102
 Vinuela, E., 740
 Viola, P. L., 102
 Virden, R., 31, 33, 43, 45
 Visakorpi, J., 562
 Visser, L., 660
 Viswamitra, M. A., 964
 Vitols, E., 72, 75
 Viveros, O. H., 930, 931
 Vliegenthart, J. F. G., 971
 Voelter, W., 970
 Voet, D., 236
 Voet, J. G., 987
 Voet, L. R., 717
 Vogel, A., 509
 Vogel, M., 419, 426
 Vogel, W. H., 115
 Vogt, M., 508
 Vogt, P. K., 510, 511, 512, 513
 Vogt, V., 280, 281, 287, 414
 Vogt, W., 151, 163
 Voinar, A. O., 105
 Vold, R. D., 243
 Vold, R. L., 904
 Volk, B. W., 552, 555, 696
 Vol'kenshtein, M. V., 97, 855, 879, 880, 884
 Völlmin, J. A., 982
 Volpin, D., 618, 619, 622, 623, 624, 625, 626
 Vonderhaar, B. K., 213
 von der Helm, K., 278, 288
 Von Dreele, P. H., 884, 885, 886, 889, 892
 von Euler, U. S., 171, 932
 von Hippel, P. H., 231-300; 235, 236, 243, 245, 249, 250, 252, 254, 256, 259, 260, 261, 265, 281, 870, 874, 889, 904, 905, 910, 913, 914, 918, 917, 918, 920
 Vonkeman, H., 163, 165
 Voorma, H. O., 384
 Voorn, H. J., 249
 Vorbeck, M. L., 144
 Vos, J., 186
 Vosberg, H.-P., 302
 Voss, E. W. Jr., 854
 Vostal, J., 114
 Votta, R. A., 559
 Vournakis, J. N., 879
 Vovis, G., 456
 Voynow, P., 385, 386, 388, 390, 391, 398, 399
 Vrana, M., 102
 Vrejoiu, G., 102
 Vu-Thu-Huong, 108
 Vuust, J., 619, 622, 631, 632, 633, 635
- W
- Wacker, A., 521
 Wacker, W. E. C., 92, 107, 111
 Wada, A., 257, 873, 880, 881, 882, 885
 Wada, K., 205
 Wada, O., 112, 114
 Waddell, A., 566
 Wade, C. W. R., 990
 Wade-Jardetzky, N. G., 873, 878, 881, 884, 890
 Waelsch, H., 16
 Waggoner, A. S., 858
 Wagh, P. V., 681
 Wagner, O. W., 63, 65
 Wagner, R. K., 210, 221
 Wagner, R. R., 474, 494, 518
 Wahba, A. J., 383, 384
 Wahl, P., 245, 854, 855, 860
 Wahlstrom, A., 148
 Waisman, J., 654
 Wakil, S., 806
 Waku, K., 131, 134, 135
 Walaas, E., 34, 35
 Walczak, W., 788
 Wald, G., 735, 740, 829
 Waldron, H. A., 113, 114
 Wälinder, O., 42
 Walker, D. A., 105

- Walker, D. G., 31, 33, 43, 45
 Walker, D. H., 479, 480, 487
 Walker, G. A., 59
 Walker, G. P., 106
 Walker, I. O., 396
 Walker, L. M., 804
 Walker, P. M. B., 338
 Walker, S. M., 722
 Wall, R., 509
 Wallace, J. W., 972
 Wallace, R. A., 94
 Wallach, D. F. H., 734, 740, 741, 742, 743, 744, 747, 768, 857
 Wallach, D. P., 164
 Waller, J. P., 379, 385
 Walraven, S. L., 706, 721
 Walsh, C. T., 41, 42, 43
 Walsh, J. J., 108
 Walsh, K. A., 853
 Walsh, P. M., 794
 Walter, G., 280, 291, 411, 416, 428, 429, 509
 Walter, R., 873
 Walton, A. G., 873, 874, 880, 890
 Walton, G. M., 172
 Walton, J. N., 545, 552, 556
 Walton, M., 132, 133
 Wampler, D. E., 34, 49
 Wang, J. C., 237, 241, 291, 308
 Wang, J. L., 851, 853
 Wang, R. C. H., 195
 Wang, Y. M., 547
 Warashina, A., 910
 Ward, C. B., 318, 321, 322, 323, 324
 Ward, D. C., 245, 246, 855
 Ward, R., 473
 Ward, S., 481, 489, 490, 491, 496
 Wardell, J. R. Jr., 694
 Wardi, A. H., 675
 Ware, W. R., 847
 Warford, L. R., 547, 551
 Wargel, R. J., 785, 786
 Waring, M. J., 245
 Warner, C., 436
 Warner, H. R., 309
 Warren, J. C., 205
 Warren, L., 732
 Warshel, A., 872
 Waser, J., 962
 Waskell, L., 290, 419, 420, 421, 425
 Wasset, M. K., 130
 Wasserman, A. R., 736
 Wasserman, R. H., 179-202; 179, 180, 181, 182, 783, 801
 Wasson, J. S., 99
 Watanabe, A., 860
 Watanabe, M., 105, 106
 Watanabe, S., 589, 590
 Watanabe, T., 449, 453, 454
 Waterson, A. P., 475
 Watkin, D. J., 962
 Watkins, J. C., 755, 763, 766, 769, 770
 Watkins, W. M., 691
 Watling, A. S., 102
 Watson, D. G., 960
 Watson, D. H., 475
 Watson, H. C., 32, 46, 660, 816
 Watson, J. D., 236, 377, 379, 380, 467, 495
 Watson, K., 350
 Watt, S. D., 95
 Watt, W. B., 689
 Watts, D. C., 31, 33, 44, 45
 Watts, J. L., 557
 Watts, R. L., 31
 Watts, R. W. E., 547
 Watts-Tobin, R. J., 380, 427
 Waud, D. R., 937
 Waugh, J. S., 35
 Wauters-Williams, D., 450, 459, 460
 Waxman, H. S., 113
 Waxman, S., 80
 Waynforth, H. B., 207, 210
 Weatherall, M., 113
 Webb, G. D., 941
 Weber, A., 588, 589, 603, 604, 605
 Weber, C. W., 105
 Weber, G., 153, 563, 843, 844, 848, 849, 850, 851, 852, 857, 858
 Weber, H. H., 5, 578
 Weber, K., 277, 416, 429, 439, 472, 740
 Weber, P., 696, 743, 744
 Weber, W., 854
 Webster, G. R., 151, 152, 154
 Webster, H. deF., 927
 Webster, R. E., 381
 Webster, R. G., 738
 Wechsler, J. A., 304, 307, 320, 323
 Weed, R., 102
 Weed, R. L., 745
 Weeds, A. G., 32, 579, 580, 601
 Weeks, J. R., 161, 162, 163, 169, 171
 Wegiel, A., 109, 111, 112
 Weglicki, W. B., 151, 152
 Wehrli, W., 411
 Weidekamm, E., 857
 Weigle, J., 488
 Weigle, J. J., 448
 Weihing, R. R., 608, 609, 610, 744
 Weill, J. C., 693
 Weinberg, E. D., 104
 Weinberg, S. B., 102
 Weiner, I. M., 103
 Weiner, J. H., 788, 792, 793, 804
 Weiner, N., 926, 936
 Weiner, R., 168
 Weinheimer, A. J., 162, 538
 Weinstein, D. B., 732
 Weinstein, R. S., 744
 Weinstock, I. M., 188
 Weintraub, H., 318
 Weir, D. G., 692
 Weinsbach, J. A., 692, 694
 Weisblum, B., 363, 392, 411
 Weise, V. K., 935
 Weisenberg, R. C., 608, 609
 Weiser, H., 185
 Weiser, M., 652
 Weisleder, D., 981
 Weislogel, P. O., 353, 359, 361
 Weiss, B., 308, 311
 Weiss, H., 359
 Weiss, H. V., 95
 Weiss, J. B., 673, 674, 676
 Weiss, L., 762
 Weiss, R. A., 510, 511, 512
 Weissbach, A., 106, 319
 Weissbach, H., 56, 59, 75, 76, 77, 78, 80, 81, 380
 Weissberg, J. B., 112, 114, 115
 Weissman, N., 640, 641, 651
 Weissmann, C., 383, 415, 436
 Weissmann, G., 168, 755, 760, 762, 763, 764, 765, 767, 770
 Weitzel, G., 106
 Welch, A. D., 930
 Welch, J. W., 111
 Welch, M., 207
 Weller, A., 848
 Wells, J. R., 334, 335
 Wells, M., 880
 Wells, M. A., 148
 Wells, R. D., 238, 245, 268, 286, 524
 Welsh, K. I., 693
 Weltman, J. K., 854, 858
 Wendell, P. L., 32, 46
 Wendt, P., 618, 621, 625, 627
 Wenner, C. E., 344, 345
 Wennmalm, A., 165
 Wensink, P. C., 319, 418, 419

- Wentworth, P., 552, 556
Wenzel, M., 207
Werner, R., 304, 305, 306, 309, 316, 319
Werning, C., 161, 169
Wessel, W., 102
Wessells, N. K., 608, 609, 610
West, I. C., 805
West, J. J., 583
Westall, F. C., 676, 677
Westcott, W. C., 754, 758
Wester, P. O., 102
Westergaard, O., 346, 366
Westerman, M. P., 113, 744
Westermann, E., 170
Westermarck, T., 102
Western, A., 697
Westhead, E. W., 34, 49, 95
Westlake, D. W. S., 56
Westley, J. W., 957
Westö, G., 101, 102, 103
Westphal, H., 367, 508, 509
Westwood, J. H., 969, 970, 976, 977
Wetlaufer, D. B., 715, 880
Wetzel, M. G., 732
Weusthoff, G., 323
Whalley, J. M., 314, 315
Whayne, T. F., 722
Wheeler, K. P., 764, 780
Wheelock, E. F., 538
Whipple, M. B., 781
Whitaker, B. D. L., 928
White, A., 40
White, D., 805
White, D. A., 152
White, D. B., 102
White, F., 107
White, G. F., 36
White, K. P., 302
White, R. S., 31, 33, 38
Whitehead, J. S., 676, 677
Whiteley, H. R., 56
Whitfield, C., 80
Whitfield, J. F., 168, 171
Whittaker, P. A., 360, 361, 365
Whittaker, V. P., 96, 929
Whittam, R., 764, 780
Whybrow, W. A., 383, 384
Wichmann, K., 216
Wickner, R. B., 308
Wideman, C., 603
Widnell, C. C., 204, 222
Wiedemann, H., 548, 552, 556
Wiedemann, M. J., 57, 58
Wiegandt, H., 722
Wiener, M., 207
Wiese, W. H., 506, 507
Wiesmann, U., 550, 554
Wiesmann, U. N., 553, 556
Wiest, W. G., 216, 217, 218, 219
Wiklander, L., 102
Wilcox, G., 271, 439, 797
Wilcox, H. G., 705
Wilcox, K. W., 292, 449, 454
Wilcox, P. E., 104
Wildey, P., 475
Wiley, C. E., 32
Wiley, D. C., 817
Wiley, W. R., 791, 794, 795
Wilhelm, J. M., 393, 475, 476
Wilkie, D., 360, 362, 363, 364
Wilkie, D. R., 607
Wilkins, M. H. F., 236, 252, 733, 755
Wille, G., 163
Willecke, K., 807
Willems, C., 171
Williams, C. H., 735
Williams, D., 210
Williams, D. G., 959
Williams, D. H., 180
Williams, D. L., 57, 58, 278
Williams, F. R., 83, 100
Williams, G. R., 142
Williams, H. E., 546, 548
Williams, J., 679, 685
Williams, M. C., 973
Williams, M. L., 145
Williams, N. R., 979
Williams, R. C., 469
Williams, R. H., 189
Williams, R. J. P., 65, 73, 83, 100, 961
Williams, R. M., 722
Williams-Ashman, H. G., 204
Williamson, A. R., 674
Williamson, D. H., 346, 347, 360, 364
Williamson, F. B., 961
Williamson, P., 946, 947
Willick, G. E., 241
Willis, A. L., 162, 163, 168
Willis, T. C., 880
Willoughby, D. A., 168
Wills, R. D., 705, 706, 713, 714
Willstaetter, P., 12
Willumsen, L., 903, 904, 905, 914, 919, 920
Wilmsen, E. N., 103
Wilson, B. M., 987
Wilson, D., 142
Wilson, D. L., 430
Wilson, G., 806, 808
Wilson, H. R., 964
Wilson, J. D., 204
Wilson, J. E., 32
Wilson, J. H., 490
Wilson, O. H., 791, 792, 801
Wilson, P. W., 180
Wilson, T. H., 795, 797
Windgassen, R., 64, 79
Winograd, A. I., 546, 548
Winfield, M. E., 72, 73
Wingert, L., 261
Winkert, J. W., 690
Winkler, H., 153, 930, 931, 932
Winkler, H. H., 795, 797, 800
Winkler, M., 854
Winkley, M. W., 969
Winklmair, D., 884, 888, 891
Winnik, M., 939, 940, 941, 947
Winocour, E., 509
Winslow, R. M., 433, 434
Winter, C. G., 804
Winter, D., 102
Winters, W. D., 476
Wintersberger, E., 342, 346, 353, 354, 357
Wintersberger, U., 346, 354
Wintrobe, M. M., 112
Winzler, R. J., 675, 681, 684, 695, 696, 697, 734, 742, 743, 744
Wira, C. R., 206, 222, 223
Wirtz, K. W. A., 146, 147
Wisdom, C., 703-30
Wise, R. A., 108
Wiseman, B., 163
Wishnia, A., 904
Wiss, O., 185
Witek, E., 98
Witholt, B., 843, 844, 850
Witkin, E. M., 307
Witkop, B., 97
Witkop, C. J., 545
Witmer, H. J., 277, 278, 290
Wittmann, H. G., 385, 386, 389, 391, 392, 393, 394, 398
Witz, J., 99
Wlodawer, P., 165
Wobeser, G., 102
Woese, C., 397, 404, 433
Woese, C. R., 433
Wofsy, L., 940
Wojtczak, L., 144, 145
Wold, F., 105
Woledge, R. C., 607
Wolf, B., 317, 318, 322
Wolf, H. U., 745
Wolfe, H. J., 552, 556
Wolfe, L. S., 162, 163, 164, 165, 166, 170, 545, 552,

- 555, 987
Wolfe, R. S., 81, 82, 83, 84, 101
Wolfe, S. M., 171
Wolff, I., 652
Wolff, J., 151
Wolff, S. M., 537
Wolgram, F., 739
Wolfrom, M. L., 954
Wolfson, J., 314, 318, 319
Wolin, E. A., 81, 101
Wolin, M. J., 81, 82, 101
Wollmer, A., 682, 686
Wolman, M., 189
Wolman, S., 509
Wolstenholme, D. R., 334, 335, 337, 338, 341, 342, 344, 345, 348, 367
Wolthers, B. G., 816
Wong, K.-Y., 235, 259, 918
Wong, P. T. S., 605, 735, 746, 786, 797, 805
Woo, S. L. C., 413
Wood, D. D., 339, 357, 732, 735, 743, 747
Wood, H. G., 84, 101
Wood, J. M., 68, 81, 82, 83, 96, 100, 101
Wood, M. K., 817, 838
Wood, R., 132, 133, 135
Wood, R. J., 191
Wood, T. C., 794
Wood, W. B., 450, 459, 481, 483, 484, 485, 486, 487, 489, 490, 495, 496
Woods, D. D., 79, 100
Woods, E. F., 578, 585, 590
Woodside, E. E., 692
Woodward, B., 977
Woodward, C. K., 911, 912, 913, 914, 921
Woodward, D. O., 364
Woodworth, R. G., 104
Woody, N. C., 546, 567
Woody, R. W., 873, 879, 880, 884
Wooley, D. E., 608
Worcel, A., 313, 324
Work, T. S., 334, 348, 350, 351, 358, 359, 367
Worowski, K., 102
Worsfold, M., 545, 552, 556
Worthen, H. G., 108
Worthington, C. R., 755
Wosilait, W. D., 193, 194
Wotiz, H. H., 207, 212, 213, 220
Wotiz, H. S., 212, 220
Wray, V., 969, 970
Wrenn, T. R., 204
Wright, C. S., 816
Wright, E. M., 758
Wright, H. N., 519
Wright, H. T., 816
Wright, M., 456
Wright, P. B., 536
Wright, P. L., 732
Wu, A. M., 423, 424, 438
Wu, C. W., 287, 288
Wu, G. J., 354
Wu, H. C. P., 795
Wu, T.-W., 148, 149
Wu, Y.-C., 684
Wulff, G., 975
Würsch, J., 185
Wurtz, M., 473
Wyckoff, H. W., 259, 817
Wyke, A. W., 662
Wykle, R. L., 130, 131, 132, 133, 134, 135
Wyllie, J. H., 163
Wyman, J., 849, 881, 937
Wynn, C. H., 654
Wynston, L. K., 629
Wyss, R. H., 207, 208, 209
- X
- Xavier, A. V., 961
Xuong, N. H., 816
- Y
- Yagi, K., 582, 599
Yamada, K. M., 610
Yamada, R., 56, 72, 74
Yamada, S., 605
Yamagami, H., 319
Yamagishi, H., 435
Yamaguchi, H., 680
Yamaguchi, K., 326
Yamakawa, T., 436, 987
Yamamoto, G., 343, 345
Yamamoto, M., 105
Yamamoto, N., 319
Yamamoto, S., 343, 345, 910
Yamamoto, T., 603, 605
Yamamura, H., 49
Yamanaka, M., 456
Yamane, K., 693
Yamane, T., 98, 241, 873
Yamaoka, K., 873
Yamaoka, N., 968
Yamashina, I., 680, 684, 690
Yamashita, K., 171
Yamashita, T., 597
Yamazaki, H., 411
Yamazaki, S., 474, 518
Yan, J. F., 870, 872, 873, 874, 878, 879, 880
Yan, Y., 381
Yanagida, M., 483, 490, 491
Yang, C. C., 945, 946
Yang, C. S., 736
Yang, J. T., 524, 873, 879, 880, 884, 886, 888, 889
Yang, S., 353, 359
Yankofsky, S. A., 433
Yannoni, C., 565
Yano, Y., 112, 114, 732
Yanofsky, C., 793
Yaron, A., 248, 879, 880, 884, 885, 889, 893
Yarus, M., 236, 238
Yasuda, Y., 680
Yasunobo, K. T., 106
Yasutake, W. T., 102
Yates, K. M., 217
Yates, P., 171
Yazawa, Y., 599
Yeager, H., 654
Yeglian, C., 280, 281, 425, 481
Yekundi, K. G., 192
Yevich, P. P., 108
Yguerabide, J., 850, 854, 858
Yielding, K. L., 852
Yim, N. C. F., 692, 694
Yip, C. C., 732, 734, 745, 747, 747
Yip, L. C., 551, 567
Yokohashi, G., 108
Yokoyama, Y., 547, 557, 559
Yonath, A., 892
Yonetani, T., 843
Yoneyama, M., 889
Yoo, T. J., 854
York, J. L., 106
Yoshida, A., 545, 549, 551
Yoshikawa, H., 102, 108, 313, 319, 321, 323, 326
Yoshimori, R., 449, 450, 453, 454, 458, 459
Yoshimoto, A., 164, 165
Yoshioka, K., 603
Yoshioka, Y., 105, 106
Yosizawa, Z., 676, 677, 687
Yot, P., 855
Youldis, E. J., 108
Younathan, E. S., 30, 31, 46
Young, D. W., 964
Young, E. T. II, 421
Young, L. B., 849, 851
Young, M., 582, 586, 589, 597
Young, P. A., 538
Young, R. B., 207
Young, R. C., 976
Young, W. J., 568
Youngner, J. S., 519, 521, 530
Yu, B. P., 606
Yu, F. L., 355
Yu, M. C., 538

Yu, R., 360
 Yu, R. K., 677, 679
 Yuan, D., 288
 Yuan, R., 447-66; 449, 450,
 453, 454, 455
 Yue, R. H., 31
 Yukel'son, L. Ya., 148
 Yungbans, W. N., 142
 Yunker, M., 981
 Yura, T., 419, 425

Z

Zacharewicz, M., 105
 Zagalak, B., 66
 Zagorska, L., 402, 403
 Zahar, Z., 108
 Zahler, W. L., 137
 Zaidman, J., 546
 Zajusz, K., 105, 110
 Zakaria, A., 879, 890
 Zalkin, H., 188
 Zama, M., 855
 Zamenhof, S., 304
 Zanardi, S., 113
 Zand, R., 787, 803
 Zannoni, V. G., 559
 Zaoralek, P., 603
 Zardi, L., 338

Zarkowsky, H. S., 546
 Zarlengo, M. H., 877
 Zborowski, J., 144, 145
 Zechmeister, K., 964
 Zegarski, W., 109
 Zeichhardt, H., 395
 Zeichner, M., 656
 Zeikus, R. D., 641
 Zelazo, P. C., 473
 Zeller, A., 105
 Zeman, A. A., 187
 Zenchenko, S. A., 855
 Zeppezauer, E., 817
 Zeroka, D., 892
 Zeszotek, E., 280
 Zewe, V., 33
 Ziboh, V. A., 163
 Ziegler, S. M., 880
 Zieve, P. D., 171
 Ziff, M., 654
 Zillig, W., 277, 279, 280,
 283, 284, 287, 291, 411,
 412, 416, 428, 429, 439
 Zilliken, F., 687
 Zilversmit, D. B., 146,
 147, 704, 726
 Zimm, B. H., 243, 255,
 882, 883, 884, 886, 888,
 861

Zimmer, C., 98, 246
 Zimmer, E., 627
 Zimmer, G., 597
 Zimmering, P. E., 209
 Zimmerman, B. G., 162
 Zimmerman, R., 397
 Zimmermann, R. A., 391,
 401
 Zinbo, M., 971
 Zinder, N. D., 381
 Zipser, D., 264, 265, 270,
 381
 Zischka, R., 546, 547
 Zlochevskaia, I. V., 114
 Zobel, C. R., 601
 Zook, B. C., 114, 115
 Zschocke, D., 744, 745
 Zubay, G., 270, 272,
 431
 Zubkov, V. A., 879, 880
 Zucker-Franklin, D., 745
 Zull, J. E., 763, 769
 Zundel, G., 889, 891
 Zurier, R. B., 168
 Zvilichovsky, B., 734,
 742
 Zwaal, R. F. A., 740
 Zweerink, H. J., 474
 Zylber, E. A., 353, 355

SUBJECT INDEX

A

- Abetalipoproteinemia, 185
- Acatalasia, 545, 551
- Acetate kinase
 - mechanism of, 42
 - substrates of, 36
- Acetate synthesis
 - corrinoids in, 84, 85
- Acetoglucal, 974
- Acetylcholine
 - and cholinergic transmission
 - antagonists of, 937
 - preparations used, 926
 - release of, 927-29, 933-35
 - compartmentalization of, 933-35
 - in electric organs, 11, 12, 935-38
 - formation of, 15, 16
 - in nerve activity
 - and acetylcholinesterase, 11, 12
 - and metabolism, 11
 - receptor protein for, 13, 939, 945
 - role of, 10, 11, 13, 14, 19
 - receptor for
 - affinity reagents for, 939, 940
 - antagonists of, 937
 - binding to, 937, 941-45
 - in electric organs, 936-38
 - and ion permeability, 936, 937
 - isolation of, 941-45
 - labeling of, 946
 - and microsacs, 943, 944
 - model of, 937, 938
 - modification of, 939
 - and physiological activity, 941-45
 - as protein, 939, 945
 - reversible binding to, 941
 - sulfhydryl groups in, 939
 - toxin binding, 945-47
 - in vertebrates, 938, 939
 - receptor protein for
 - function of, 13, 17, 18
 - isolation of, 17, 945
 - modification of, 939
 - release of
 - anatomy of, 933
 - and compartmentalization, 934
 - eserine effect, 935
 - quantal, 927, 928
 - spontaneous, 928
 - and vesicles, 929, 933, 935
- Acetylcholinesterase
 - dye binding of, 851
 - in electric organs, 11, 12
 - lead effect, 110
 - localization of, 15, 943
 - in membranes, 734, 735
 - in nerve activity, 11-14, 19
 - and organophosphates, 14, 15, 17, 24
 - purification of, 14
 - solubilization of, 941
 - in vesicles, 943
- N-Acetylglucosamine kinase, 46
- N-Acetylglucosaminidase, 98
- Acid phosphatase
 - cadmium effect, 105, 106
 - deficiency of, 545
 - lead effect, 110
 - mercury effect, 98
- Acid phosphohydrolase, 98
- Acridines
 - DNA binding of, 244
 - mutagenesis by, 365, 366
- Acriflavine
 - DNA binding of, 244
- Actin
 - and amoeba, 608, 609
 - and muscle structure, 592, 593
 - polymerization of, 585
 - from slime mold, 608, 609
 - in thin filaments, 592, 593
- F-Actin
 - and α -actinin, 589
 - ADP exchange, 584
 - and ATP hydrolysis, 584
 - and contraction, 584, 585
 - length of, 585
 - myosin interaction of, 584
 - sonication of, 584
- G-Actin
 - ATP binding, 583
- calcium function, 583
- heavy meromyosin binding, 601
- molecular weight of, 582
- myosin interaction of, 584
- nucleotide interaction of, 584
- polymerization of, 583-85
 - sequence of, 582, 583
 - subunits of, 584
- α -Actinin
 - actions of, 589, 593, 594
 - components of, 589
 - localization of, 590
 - and muscle structure, 593, 594
- β -Actinin, 590, 591
- Actinomycin
 - deoxyguanosine complex of, 245, 246, 838-40
 - DNA binding of, 245, 246, 838-41
 - and estrogen binding, 208
 - and interferon induction, 521, 527, 530, 531
 - and interferon potentiation, 533
 - nature of, 245
 - and progestin action, 215
 - and RNA polymerase, 288
 - and RNA synthesis, 205, 288
 - structure of, 838
 - and vitamin D metabolism, 180
 - and vitamin K, 191, 195, 196
 - X-ray analysis of, 817, 838-41
- Actomyosin
 - ATPase of
 - and α -actinin, 589
 - activation of, 583, 586, 589, 600-2
 - and calcium, 586-89
 - inhibition of, 586, 588
 - mechanism, 600-2
 - and shortening, 602
 - tropoin effect, 602
 - desensitized
 - ATPase of, 586, 588
 - definition of, 586
 - as reference, 586, 588
 - natural, 586
 - in red cells, 734, 741, 745

- and spectrin, 741
 superprecipitation of, 586,
 587, 589
 threads of, 603
 Adenine phosphoribosyltrans-
 ferase
 deficiency of, 549, 567
 S-Adenosylmethionine
 in DNA restriction
 requirement for, 451, 452,
 454, 455
 role of, 449, 454, 455
 and methyl-THF homocysteine
 methyltransferase, 75-79
 Adenovirus
 assembly of, 476
 hybrids of, 506, 507
 as model system, 475
 proteins of
 number of, 474, 476
 synthesis of, 476
 X-ray diffraction of, 475
 structure of, 474, 475
 Adenylate kinase
 active site of, 46
 deficiency of, 546
 mechanism of, 40
 metal ion requirement,
 33
 molecular weight of, 30-
 32
 sequence of, 32
 thiol groups of, 31, 46
 Adenyl cyclase
 hormone activation of, 224
 prostaglandin effect on, 168-
 71
 see also Cyclic AMP
 Adenylation, 416
 ADP
 metal complexes of
 binding sites, 34
 concentration effect,
 37
 pH effect, 37
 stability of, 34
 Affinity chromatography
 of estradiol receptor pro-
 teins, 213, 214
 of lipoprotein lipase, 723
 of lipoproteins, 710
 Alamethicin, 766
 Alanine transport, 784-86
 Alanyl leucine dipeptidase,
 105
 Albumin
 cadmium binding of, 104
 lead complexes of, 109
 mercury interaction of,
 97
 see also Egg albumin, Serum
 albumin
 Alcohol dehydrogenase
 active site of, 850,
 851
 auramine O binding, 849-
 51
 cadmium effect, 104,
 106
 denaturation of, 851
 X-ray analysis of, 817
 Aldehyde oxidase, 564
 Aldoketose isomerases
 mechanisms of, 989
 stereochemistry of, 988-
 90
 Aldolase
 cadmium effect, 106
 X-ray analysis of,
 817
 Alfalfa virus, 473
 Alkaline phosphatase
 cadmium in, 104-6
 deficiency of, 546
 lead effect, 109, 110
 mercury effect, 98
 Alkaptonuria, 545
 Allosterism
 in aspartokinase, 48,
 49
 and cholinergic receptors,
 937, 938
 in hemoglobin, 818-23,
 825, 826
 of lac repressor, 266
 in phosphofructokinase,
 48, 49
 in protein kinase, 48,
 49
 in pyruvate kinase, 48,
 49
 Aminoacyl-tRNA synthetases
 in organized structures,
 695
 δ -Aminolevulinic acid dehy-
 drase
 assay of, 115
 cadmium effect on,
 105
 clinical aspects, 114
 lead effect on, 109, 112,
 114, 115
 and vitamin E, 187, 188
 δ -Aminolevulinic acid syn-
 thetase
 cadmium effect, 106
 lead effect on, 112
 and vitamin E, 187, 188
 Aminomutases
 cobamide in, 71
 cofactors for, 71, 72
 deoxyadenosylcobalamin in,
 71
 reactions of, 70-72
 Aminopeptidase, 110
 Amniocentesis
 and chromosomal abnor-
 mality, 560
 in erythroblastosis, 559
 and Fabry's disease,
 987
 premises of, 559, 560
 in prenatal diagnosis, 561,
 987
 time of, 560
 AMP
 conformation of, 961,
 966
 NMR of, 961
 X-ray diffraction of, 961
 Amphotericin, 766
 Amylase, 105, 106
 α -Amylase
 glycosylation of, 676,
 680
 specificity of, 985, 986
 β -Amylase, 985
 Amylo-1,6-glucosidase, 545,
 548
 Amylo-(1,4 \rightarrow 1,6)-transgluco-
 sidase, 545, 548
 Androgens
 receptor proteins for, 222,
 223
 Anemia
 enzymes in, 546
 and vitamin E, 183,
 187
 Anilinoanthracene sulfonate
 as antigenic determinant,
 854
 as fluorescence probe
 binding of, 849, 850
 fluorescence of, 844
 hydrophobic, 844
 of membranes, 857,
 858
 molecular basis of, 859
 polarity dependence of,
 844-48
 and quantum yield, 847
 solvent effect, 844-47
 formation of, 504
 and hybrid viruses, 507
 Antibodies
 fluorescent, 854
 and hapten interaction,
 854
 hinge of, 854
 to ribosomal proteins, 393,
 395
 X-ray crystallography of,
 817, 835, 837
 MN-Antigenic protein
 carbohydrate of, 681, 684,
 688
 glycopeptide link in,
 675
 Antiviral protein
 and interferon action, 526,
 527, 533, 535, 536
 and ribosomes, 534
 synthesis of
 control of, 526, 527,
 533
 and interferon, 526, 533,
 534
 Aorta contracting substance,
 169
 Apiose, 978, 979
 Arabinose

- in glycoproteins, 675
 transport of, 797
 Arabinose isomerase, 988, 989
 Arabinose operon
 regulation of
 positive, 438
 C-protein role, 438, 439
 and ribulokinase synthesis, 439
 Arboviruses
 and interferon induction, 518
 Arginase
 in argininemia, 545, 546
 cadmium effect on, 105
 and Shope papilloma virus, 566
 Arginine kinase
 active site of, 46, 47
 ATPase of, 43
 dansylation of, 40, 46
 mechanism of, 39, 40, 42, 48
 metal ion requirement, 33
 phosphorylated complex of, 43
 sequence of, 32
 specificity of, 48
 subunits of, 30-32
 thiol groups of, 31, 45
 Argininemia, 545, 566
 Arginine transport, 791, 792
 Argininosuccinase
 in amniotic cells, 560
 in argininosuccinic aciduria, 545
 Arylsulfatase
 cadmium effect, 106
 in metachromatic leucodystrophy, 546, 552, 555, 565, 566
 and vitamin E deficiency, 188
 Ascorbic acid
 and ochronotic arthritis, 559
 Aspartate aminotransferase, 98
 Aspartate transcarbamylase
 X-ray analysis of, 817
 Aspartokinase
 allosterism of, 48, 49
 isoenzymes of, 31, 32
 mechanism of, 43
 potassium requirement of, 34
 specificity of, 48
 subunits of, 30, 31
 Aspartokinase-homoserine dehydrogenase I, 46
 Aspartylglycosaminuria, 545
 Aspirin
 and prostaglandin synthesis, 168
 ATP
 actin binding of, 583
 and amino acid transport, 804
 and calcium transport, 783, 784
 and catecholamine storage, 930
 in choline acetylation, 16
 and DNA nucleases, 456
 and DNA replication, 303, 305
 in DNA restriction hydrolysis of, 452, 453, 455, 456
 requirement for, 450-52, 454
 role of, 449, 455, 456
 and DNA synthesis, 303, 305
 and β -lysine aminomutase, 71, 72
 and D-lysine aminomutase, 71, 72
 metal complexes of
 binding sites, 34, 35
 concentration effect, 37
 dissociation of, 35
 pH effect, 37
 stability of, 34
 in methane formation, 81-83
 in phospholipid biosynthesis ether-containing, 130-32, 134
 and potassium transport, 780
 e-ATP, 860
 ATPase
 and α -actinin, 589, 590
 of actomyosin
 activation, 586, 589, 600-2
 calcium effect, 586, 587
 desensitized, 586, 588
 inhibition of, 586, 588
 mechanism, 600-2
 and shortening, 602
 troponin effect, 602
 and alkali metal transport, 780
 of arginine kinase, 43
 bacterial, 735
 cadmium effect, 105, 106
 calcium dependent
 and calcium transport, 783, 784
 in sarcoplasmic reticulum, 734, 745, 746
 and calcium transport, 783, 784
 and F-actin, 584
 of heavy meromyosin, 601
 of hexokinase, 43
 inhibition of, 81
 lead effect, 110
 in membranes
 mitochondrial, 736
 and phosphatidylserine, 763, 764
 plasma membrane, 734, 745, 746
 of red cells, 745
 of sarcoplasmic reticulum, 734, 745, 746
 mitochondrial, 359, 360, 859
 and muscle contraction, 606, 607
 of myosin
 activation of, 583, 588, 598
 chemical modification, 598
 configuration of, 599, 600
 and fluorodinitrobenzene, 599
 inhibition of, 584
 kinetic scheme, 594-98
 and light chains, 579, 580
 mechanism of, 594-97
 phases of, 594
 phosphorylated intermediate in, 594-97
 rate-limiting step, 596, 597
 SH groups, 597, 598
 spin resonance studies, 597
 and ouabain, 81
 of phosphofructokinase, 43
 phosphorylated form, 780, 783, 784
 in sarcoplasmic reticulum, 604-6, 734, 745, 746
 sodium dependent
 in plasma membrane, 734, 745, 746
 of troponin, 586, 587
 in vesicles, 943
 Augustmycin, 974
 Auramine O
 fluorescence of
 and alcohol dehydrogenase, 849-51
 and viscosity, 849
 Avian myeloblastosis virus
 and DNA catenation, 342
 Avidin, 214, 215
 B
 Bacillus megaterium, 144

- Bacillus stearothermophilus*, 284
- Bacillus subtilis*
- DNA synthesis in
 - membranes in, 326
 - in permeable cells, 303
 - symmetry of, 310, 311, 313, 314
 - phage SPO1 of, 430, 431
- Bacillus thuringiensis*
- toxin of, 976
- Bacitracin, 104
- Bacteriophage fd, 416, 417
- Bacteriophage Ff
- gene-5 protein of, 263, 264
 - melting protein of, 263
- Bacteriophage
- DNA of
 - gene N of, 421, 422
 - immunity region of, 421, 422
 - nature of, 421
 - promoters of, 421-23
 - repressor binding by, 273, 274
 - DNA synthesis in
 - in cellophane system, 304
 - direction of, 317
 - membranes in, 326
 - origin of, 315
 - and RNA synthesis, 323, 324
 - symmetry of, 314
 - integrative suppression by, 320
 - operator of
 - and repression mechanism, 274, 275
 - repressor binding by, 273-76
 - structure of, 275
 - N protein of, 421-24
 - Q protein of, 425
 - repressor of
 - action of, 272, 423, 424, 721
 - active form of, 273, 274
 - affinity of, 274-76
 - operator interactions of, 273, 274, 276, 423
 - properties of, 272, 529
 - specificity of, 275, 276
 - restriction of, 448
 - structure of, 479
 - tail, 488, 489
 - tail fiber of, 491
 - transcription of
 - early, 421
 - M factor of, 414
 - initiation of, 423
 - late, 422
 - model of, 421, 422
 - and ϕ protein, 423
 - regulation of, 421-25
- Bacteriophage M13
- DNA replication in
 - gene-5 product in, 315
 - and rifampicin, 311
- Bacteriophage P1, 480
- Bacteriophage P2
- activation of, 420, 421
 - assembly of, 480
 - chromosome of, 315
 - in integrative suppression, 320
- Bacteriophage P4
- P2 requirement, 420, 421
 - RNA polymerase of, 421
- Bacteriophage P22
- assembly of, 480
 - replication of, 319, 327
- Bacteriophage ϕ X174
- assembly of
 - in infected cells, 478
 - in vitro, 477
 - DNA of
 - structure of, 476
 - synthesis of, 477, 478
 - DNA replication of
 - control of, 315
 - ligase role, 309
 - membranes in, 326
 - mode of, 314, 315, 477, 478
 - origin of, 315, 316
 - in permeable cells, 310, 314
 - electron microscopy of, 476
 - structure of
 - proteins of, 476, 477
 - subunits in, 476, 477
 - transcription of, 417, 418
- Bacteriophage PM2
- envelope of, 738, 747
 - lipoprotein membrane of, 491, 492
 - proteins of, 492
 - structure of, 491, 492
 - X-ray diffraction of, 492
- Bacteriophage Q β
- assembly of, 473
 - replicase of
 - ψ factor in, 415, 434
- Bacteriophage SPO1, 430, 431
- Bacteriophage SPPI, 315, 316
- Bacteriophage T2, 244
- Bacteriophage T3
- RNA polymerase of, 290, 420
- Bacteriophage T4
- DNA of
 - and assembly, 482, 484-86
 - and head length, 484
 - replicative form of, 480, 483
 - structure of, 425, 480, 481, 483, 486
 - DNA polymerase of, 307
 - DNA replication in
 - and assembly, 480, 483, 487
 - and circularization, 319
 - direction of, 316, 318
 - electron microscopy of, 316
 - membranes in, 327
 - in mutants, 483
 - origin of, 316
 - replicative form of, 480, 483
 - DNA structure in, 524
 - electron microscopy of, 316, 487, 489
 - gene-32 protein of
 - DNA binding of, 262, 263
 - and DNA melting, 262
 - function of, 308
 - properties of, 262
 - in recombination, 263
 - role of, 261, 262
 - genetic map of, 480
 - head of
 - assembly of, 482-87
 - DNA of, 480, 483
 - DNase treatment of, 485
 - genes for, 481, 483, 484
 - precursors of, 485, 486
 - proteins of, 481, 483, 486
 - structure of, 480, 483, 484
 - tail joining of, 486
 - as interferon inducer, 523, 524
 - mRNA of, 289, 290
 - petit forms, 484, 486, 487
 - tail
 - assembly of, 482, 487-89
 - baseplate of, 487
 - core of, 481, 487, 488
 - dihydrofolate reductase in, 488
 - fiber attachment, 489-91
 - length of, 488
 - proteins of, 481, 488
 - sheath of, 481, 487, 488
 - structure of, 487
 - subunits of, 487, 488
 - tail fibers of
 - antigens of, 489
 - assembly of, 482, 489-91

- attachment of, 480-91
 properties of, 490
 proteins of, 481, 490, 491
 structure of, 490
 transcription in
 and chloramphenicol, 426
 early, 425-28
 initiation of, 428
 late, 426
 regulation of, 426, 427
 rifampicin effect, 426
 and RNA polymerase, 428-30
 sequences of, 425
 Bacteriophage T7
 composition of, 479
 DNA of, 418
 DNA polymerase of, 307
 mRNA of, 289, 290
 replication of
 and circularity, 319
 direction of, 318
 ligase role, 309
 RNA polymerase of, 290, 419, 420
 transcription of, 418-20
 Basement membrane
 composition of, 637-39
 function of, 637
 glycosylation of, 639
 hydroxyllysine in, 626
 and interstitial collagens, 628
 occurrence of, 637
 Bence-Jones proteins
 glycopeptides of, 679
 glycosylation of, 690, 691, 695
 X-ray analysis of, 817
 Biotin, 557
 Bleomycin A2, 976
 Blood clotting
 liposomes in, 765
 Blood clotting factors
 activation of, 197
 synthesis of
 de novo, 196, 197
 inhibition of, 195, 196
 in vitro, 194, 195
 vitamin K in, 194-97
 Blood group substances
 carbohydrates of
 size of, 677
 structure of, 688
 Bradykinin, 684
 Branched-chain ketoaciduria
 enzyme deficiency in, 545, 550
 and myelin development, 563
 prenatal diagnosis of, 561
 Brome grass mosaic virus, 99
 Bromelain, 680
 Brush border fragments, 754
 α -Bungarotoxin
 and acetylcholine receptor complex with, 946, 947
 labeling of, 946
 and microsacs, effect on, 943, 946
 Bushy stunt virus, 472
 γ -Butyrobetaine hydroxylase, 637
 C
 Cadmium
 and amino acids, 95, 103, 104
 bacitracin complex of, 104
 biochemical features of, 94, 95, 103
 chemical properties of, 94, 95
 and enzyme activity, 105, 106
 and hypertension, 108
 and nucleic acids, 107
 and oxidative phosphorylation, 107
 and parasitic infection, 107
 and phospholipids, 105, 107
 pollution with, 103
 polythiol, reaction with, 104
 protein binding of
 albumins, 104
 in metalloenzymes, 104
 metallothionein, 93, 104, 105
 toxicity of, 92, 107, 108
 Calcium
 and actin, 583
 and ATPase, 734, 745, 746
 ATP binding of, 34, 35
 binding protein for, 181, 182
 myosin binding of, 599
 and neurotransmitter release, 927, 928, 932
 and phospholipase, 149, 151
 and prostaglandin action, 170
 and pyruvate kinase, 33
 and sarcoplasmic reticulum, 604, 605, 734, 745, 746
 transport of
 and ATP, 783, 784
 and vitamin D, 180, 181, 783
 Calcium binding protein, 181, 182
 Calsequestrin, 605, 735
 Cancer
 etiology of, 514
 viruses in, 503, 504
 Carbamate kinase, 43
 Carbohydrates
 conformation of
 designation of, 955-57
 equilibria of, 965-67
 and mass spectrometry, 970-72
 and model building, 961, 963
 and NMR studies, 961, 963, 965-70
 nomenclature of, 955, 956
 in nucleosides, 960, 961
 in polysaccharides, 961, 963
 representation of, 957-59
 in solution, 961, 981-83
 and X-ray studies, 960-65
 enzolization of, 990
 fluorinated, 969, 970, 976-78
 isomeric composition of
 determination of, 982
 in ketoses, 982, 983
 and mutarotation, 981, 982
 metal complexes of, 968
 nitro sugars, 973
 nomenclature of, 954, 955
 structure of
 and mass spectrometry, 970-72
 NMR studies, 963, 965-70
 nomenclature of, 955, 956
 representation of, 957-59
 in solution, 961, 981-83
 and X-ray diffraction, 960-65
 sulfur containing, 975
 Carbonic anhydrase
 binding site of, 851
 cadmium effect, 106
 lead effect, 110
 mercurial binding of, 97
 X-ray structure of, 816
 zinc requirement of, 92
 Carboxypeptidase
 cadmium effect, 105, 106
 mechanism of, 851
 mercury binding of, 97
 metal ion effect, 94, 96, 104
 X-ray structure of, 816
 Carnosinase
 cadmium effect, 105
 in carnosinemia, 545

- β -Carotene
in low density lipoproteins, 713
- Catabolite gene-activator protein
action of, 431
mechanism of, 432, 433
properties of, 431
- Catalase
and acatalasia, 545
cadmium effect, 106
in enzyme replacement, 565
- Catecholamines
release of
in adrenal medulla, 929, 930
and ATP, 930
from granules, 930
process of, 930
storage of, 930
- Cathepsins, 188
- Cellobiose
mass spectrum of, 971
- Cellular metachromasia
in mucopolysaccharidoses, 548
- Ceramide trihexodidase
in Fabry's disease, 545, 552, 555, 565, 987
- Ceruloplasmin, 688, 689
- Chick helper factor, 511
- Chloramphenicol
and DNA synthesis, 322, 323
and SPO1-RNA synthesis, 430
and T4-RNA synthesis, 426
- Chloroplasts
composition of, 732, 736, 746
membranes of, 102, 732, 736, 746
- Cholesterol
biosynthesis of, 724
in high density lipoproteins, 705
in liposomes, 762
in low density lipoproteins, 713
in membranes, 760, 769, 770
in very low density lipoproteins, 718
- Cholesterol ester deficiency, 545
- Cholesterol esters
in high density lipoproteins, 705, 711, 724, 725
in lipoprotein reassembly, 711
in low density lipoproteins, 713, 726
in very low density lipoproteins, 718
- Choline acetylase, 15, 16
- Cholinesterase
active site of, 851
cadmium effect on, 105, 106
- Chondritin sulfate
glycosylated serine in, 676, 683
- Chondromucoprotein, 694
- Chorionic gonadotrophin
carbohydrate of, 688
- Chromatin
and estrogen binding, 209, 212
estrogen effect on, 205
and progesterone binding, 219
- Chromogranin A
in granules, 930
release of, 930
- Chromosomes
circularization of, 319
replication of
and circularization, 319
control of, 321-25
direction of, 306, 313, 317, 318
initiation of, 313, 319
models of, 308, 312, 313
origin of, 315-17
and protein synthesis, 322, 323
symmetry of, 312-15
RNA in, 325
- Chronic granulocytic leukemia, 343
- Chymotrypsin
active center of, 852, 853
dye binding of, 850, 851
X-ray structure of, 816
- Chymotrypsinogen
active center of, 852, 853
dye binding of, 850
X-ray structure of, 816
- CI-628 compound, 207, 208, 210
- Circular dichroism
of DNA
and histones, 252
and temperature, 237
of ethanolamine deaminase, 67
of fructose, 982, 983
and α -helix, 879
of high density lipoproteins, 707, 709, 710
of lac repressor, 266
of LIV binding protein, 787
of low density lipoproteins, 714, 715
of polyamino acids, 880
of random coil polypeptides, 880
- of RNA polymerase, 278
and β -structure, 879
of T4 tail fibers, 490
- Citrullinemia, 545, 551
- Clindamycin, 975
- Cloimphene, 207, 208
- Cobalt
ATP binding of, 35
in dioldehydrase, 64, 65
toxicity of, 92
- Coenzyme A
in phospholipid biosynthesis
ether-containing, 130-32
glycerides, 137, 138
- Coenzyme M, 82
- Coenzyme Q
and vitamin E, 184
- Collagen
antigenic determinants of, 627
assembly of
in Ascaris, 630
and dermatosparaxis, 633
genetic anomaly in, 633
self assembly, 630
of basement membranes
chain type, 638, 639
composition, 637-39
glycosylation of, 639
and interstitial collagens, 628
- biosynthesis of
and assembly, 630
and crosslinks, 661
glycosylation, 639
hydroxylation in, 631-34, 638, 639
models of, 632, 633
precursor, 630-32
proteolysis in, 631-33
regulation, 633
- carbohydrate of
binding of, 626
role of, 640
- chain composition in
 $\alpha 1$, $\alpha 2$, $\alpha 3$, 628-30
($\alpha 1$), $\alpha 2$, 619, 624-27
($\alpha 1$), 627, 628
in basement membranes, 638, 639
variety of, 618, 619
composition of, 695
- crosslinking
of aldol in, 642, 643, 656
amino adipic semialdehyde in, 642, 653, 654
biosynthetic relationships of, 661
dehydrohydroxylysinohydroxynorleucine, 643, 656, 657
dehydrohydroxylysino-norleucine in, 643, 656

- dehydrohydroxymerodesmosine in, 644, 657
 dehydrolysinonorleucine in, 642, 655
 by disulfides, 653
 hydroxyamino adipic semialdehyde in, 642, 654, 655
 hydroxylysine in, 624-26, 642, 652, 653, 875
 hydroxylysinohydroxynorleucine, 643, 657
 hydroxylysinoonorleucine in, 643, 656
 lysine in, 642, 653
 lysinoonorleucine in, 642, 655, 656
 and maturation, 652, 659, 660
 nomenclature, 663-65
 penicillamine effect, 654
 and primary structure, 624, 625, 628
 syndesme in, 657
 tetrasines in, 649, 650, 659, 660
 vitamin E effect, 187
 electronmicroscopy of, 627, 629
 extrusion of, 690
 glycosylation of
 in basement membranes, 639
 hydroxyproline in, 640
 specificity of, 639
 heterogeneity of, 688
 hormone effect in, 688
 hydrogen exchange of, 916
 hydroxylation of
 and biosynthesis, 631-34, 638, 639
 and denaturation, 636
 and extrusion, 637
 nascent chains of, 635
 and primary structure, 624-29
 requirements of, 634
 sequence requirements, 635, 636
 and translation, 634, 635
 hydroxylysine in
 and crosslinking, 875
 as sugar acceptor, 673, 676, 690
 hydroxyproline in, 640, 682
 polyamino acid models of, 870, 892
 primary structure of
 and collagenases, 618, 626
 and crosslinking, 624, 625, 628
 and functions, 629, 630
 glycine in, 629
 heterogeneity of, 618, 628, 629
 homology in, 619-21, 624, 628, 629
 hydroxylamine-sensitive bonds in, 626
 hydroxylysine in, 624-26, 628, 629, 638, 639
 hydroxyproline in, 625, 627, 639
 methionine in, 619-21, 628, 629
 methods used, 618
 peptides in, 619-23
 repeating triplets in, 625, 627
 turnover of, 640
 and vitamin E, 187
 Collagenase
 characterization of, 662
 and collagen structure, 618
 precursor of, 660
 site of action of, 626
 Complement, 767
 Concanavalin A
 actions of, 838
 binding of, 692
 subunits of, 838
 X-ray analysis of, 817, 838
 Conformation
 of AMP, 961-66
 of carbohydrates
 designation of, 955-57
 equilibria of, 965-67
 and mass spectrometry, 970-72
 and models, 961, 963
 NMR studies, 961, 963, 965-70
 nomenclature of, 955, 956
 in nucleosides, 960, 961
 representation of, 957-59
 in solution, 961, 981-83
 and X-ray studies, 960-65
 of DNA-polylysine complex, 249, 250
 fluorescence studies, 851, 852
 of fructose diphosphatase, 852
 of glutamate dehydrogenase, 852
 of glutamine synthetase, 878
 of gramicidin S, 878
 and interferon induction, 525
 of lysozyme, 878
 of myoglobin, 878
 of nucleosides, 960, 961
 of phosphorylase, 852
 of phosphotransferases, 48
 of polyamino acids
 calculation of, 873
 CD studies, 879-81
 energy considerations, 870-73, 878
 helical, 873, 874, 879
 hydrophobic interactions in, 889, 890
 and NMR, 881, 882
 and ORD, 878-81
 polyproline, 884, 890, 891
 as protein model, 869, 882
 and solvent, 878, 887-89
 β -structure, 874, 879
 transitions in, 862-92
 triple helical, 892
 of polysaccharides, 961, 963
 of RNA, 524, 525
 of transaldolase, 852
 of trypsin, 853
 of trypsinogen, 853
 of vitamin B₁₂, 961
 Copper
 DNA binding of, 242
 and lysine oxidase, 654
 Cordycepin, 355
 Coumarin, 193
 Cowpea chlorotic mottle virus, 472
 Creatine kinase
 active site of, 44-46
 isoenzymes of, 32
 mechanism of, 39, 40, 42, 48
 metal ion requirement, 33, 34, 47
 sequence of, 32
 specificity of, 48
 substrates of, 36, 44, 45
 thiol groups in, 31, 44, 45
 Creatine phosphokinase, 188
 Cryoglobulin
 X-ray structure of, 837
 Cucumber green mottle mosaic virus, 367
 Curare, 18
 Cyclic AMP
 degradation of
 prostaglandin effect, 170, 171
 epinephrine effect, 928

- and hormone action
 - and prostaglandins, 170, 171
 - hydrolysis of, 928
 - and lac operon control
 - and catabolite repression, 431-33
 - positive regulation, 270, 271
 - and neurotransmitter secretion, 928
 - norepinephrine effect, 928
 - and protein kinase, 33, 49
 - Cycloheximide
 - and estrogen action, 205
 - and vitamin K, 191
 - Cyclolinopeptide A, 878
 - Cystathionase, 545, 559
 - Cystathioninemia, 547
 - Cystathionine synthetase
 - in amniotic cells, 560
 - in homocystinuria, 548, 559
 - Cystathioninuria, 545
 - Cysteine
 - glycosylation of, 673, 674, 676
 - transport of, 784
 - Cystic fibrosis, 694
 - Cystine transport, 793
 - Cystinosis, 557
 - Cytochalasin B, 609, 610
 - Cytochrome b, 736
 - Cytochrome b₁, 735
 - Cytochrome b₅
 - folding of, 829
 - heme in, 831
 - mechanism of, 832
 - in membrane, 735
 - β -sheet in, 831, 832
 - X-ray crystallography of, 816, 829-32
 - Cytochrome b₅ reductase, 735
 - Cytochrome c
 - and cytochrome oxidase, 829
 - heme in, 827-29, 831, 832
 - hydrogen exchange of, 921
 - membrane interactions of, 763
 - in membranes, 736
 - NMR studies of, 829
 - structure in, 831, 832
 - ϵ -N-trimethyl lysine in, 684
 - X-ray crystallography of
 - heme in, 827-29, 831, 832
 - and oxidation state, 816, 827, 828
 - Cytochrome c₁, 736
 - Cytochrome c reductase, 735
 - Cytochrome f, 736
 - Cytochrome oxidase
 - cadmium effect, 105, 106
 - and cytochrome c structure, 829
 - lead effect, 105, 110
 - localization of, 359
 - in membranes, 736
 - mercury effect on, 98
 - synthesis of, 359
- D**
- Dehydrogluciferin, 848
 - Dentin, 657
 - Deoxyadenosylcobalamin
 - and dioldehydrase, 62-66
 - and ethanolamine deaminase, 56, 66-70
 - and glutamate mutase, 55, 56, 60
 - and glycerol dehydrase, 66
 - in β -lysine aminomutase, 71
 - metabolism of, 59
 - and α -methylene-glutarate mutase, 61, 62
 - and methylmalonyl mutase, 57
 - and ribonucleoside triphosphate reductase, 56, 72-75
 - Deoxyribonuclease
 - in DNA replication, 303, 308
 - in DNA restriction, 322, 450-55, 458
 - as melting protein, 261
 - and RNA polymerase, 414
 - and vitamin E deficiency, 188
 - Dermatan sulfate, 552, 553
 - Dermatosparaxis, 633
 - Dianemycin, 766
 - Diaphorase, 110
 - Dicoumarol
 - metabolism of, 194
 - and methyltransferase, 79
 - uptake of, 193
 - and vitamin K, 190
 - Differentiation
 - sporulation as, 435
 - Dihydrofolate reductase, 488
 - Dihydroxyacetone phosphate, 130
 - 1,25-Dihydroxycholecalciferol
 - activity of, 180
 - synthesis of, 180
 - Dioldehydrase
 - cobalt in, 64, 65
 - deoxyadenosylcobalamin in, 62-65
 - mechanism of, 62-65, 85
 - potassium effect, 65, 66
 - reactions catalyzed, 62, 63
 - Diphosphopyridine nucleotidases, 675
 - Distamycin, 246
 - DNA
 - acridine binding of, 244
 - actinomycin binding by, 245, 246, 838-40
 - antibiotic binding by, 245, 246
 - of bacteriophage λ , 421, 422
 - of bacteriophage ϕ X174, 476
 - of bacteriophage T2, 244
 - of bacteriophage T4, 425, 480, 524
 - of bacteriophage T7, 418
 - CD of, 237, 252
 - circular
 - branched, 344, 345
 - in mitochondria, 335
 - superhelix in, 335
 - dye binding by
 - by intercalation, 244
 - kinetics of, 244, 245
 - and melting, 244
 - and superhelix formation, 245
 - ethidium bromide binding of, 244, 245, 855
 - formaldehyde reaction of
 - kinetics of, 259
 - as melting ligand, 258, 259
 - nature of, 258
 - helix-coil transition of
 - and coil structure, 255, 256
 - energy considerations, 254, 255
 - and ligand binding, 254, 255
 - model of, 254
 - as two-state process, 254
 - histone binding of
 - electronmicroscopy of, 251
 - nature of, 248, 252, 253
 - and polylysine binding, 248
 - and spectral properties, 252
 - as interferon inducer, 523, 524
 - lac operator
 - repressor interactions of, 266-69
 - structure of, 268, 270
 - melting of
 - blocks of, 257

- and DNA methylase, 292, 293
- and dye binding, 244
- and formaldehyde, 258, 259
- and nucleases, 259-61
- as phase transition, 256
- proteins in, 235, 253-64
- and RNA polymerase, 281-83
- melting proteins of
 - DNA polymerase as, 263
 - and DNA structure, 254-56
 - F1-gene-5 protein, 263, 264
 - function of, 256
 - nucleases as, 261
 - ribonucleases as, 259-61
 - RNA polymerase as, 281-83
 - sites of interaction, 256
 - T4-gene-32 protein, 261-63
 - and T_m -lowering, 257, 258
- mercury interaction of, 98
- metal binding of
 - affinities of, 240
 - base specific, 241, 242
 - and stability, 241
 - stoichiometry of, 240
- methylation of, 292, 293
- mitochondrial
 - acridine, effect of, 364, 366
 - alkali effect, 337, 338
 - branched, 344, 345
 - catenated, 342
 - circular, 335, 344, 345
 - crosslinking of, 338
 - D loops in, 335, 344-46
 - ethidium effect on, 364
 - evolution of, 341
 - genes of, 357-64
 - information content of, 339, 340, 355
 - inheritance of, 344
 - minicircles of, 343
 - and nuclear DNA, 342
 - oligomers of, 343
 - properties of, 334, 335
 - in protists, 336, 337
 - renaturation of, 339, 340
 - repair, 346
 - replicative intermediates of, 319, 344, 345
 - sequence homologies in, 340-42
 - spacer sequences in, 340
 - strand separation of, 338, 339
 - superhelix in, 335
 - synthesis of, 319, 344-47
 - in tumor cells, 342-44
 - modification of, see DNA modification
 - ORD of, 250, 252
 - polyamine interactions of, 247, 248
 - and polyethyleneoxide, 251
 - polylysine binding by
 - and aggregation, 251
 - and conformation, 249, 250
 - cooperative, 249, 250
 - as model, 248
 - specificity of, 249, 250
 - of Polyoma virus, 475, 504, 507
 - and polyvinylpyrrolidinone, 251
 - proflavine binding of, 244, 245, 856
 - promotor sites of, 286
 - protein interactions of
 - and antibiotic binding, 245, 246
 - in bacteriophage λ , 272-76
 - base recognition, 237, 238
 - DNA polymerase, 263
 - and DNA structure, 236-39, 276
 - F-gene-5 protein, 263, 264
 - with histones, 248, 252, 253
 - kinetics of, 234, 235
 - lac repressor, 232-34, 264-71
 - melting proteins, 253-64
 - nucleases, 261
 - and polyamine binding, 247, 248
 - and polylysine, 248-52
 - and protein structure, 238-40
 - ribonuclease, 259-61
 - RNA polymerase, 232, 271, 275-91
 - sequence specificity of, 232, 234-39
 - structural aspects of, 233-39
 - thermodynamics of, 235, 236
 - T4-gene-32 protein, 261-63
 - types of, 232
 - restriction of, see DNA restriction
 - single stranded, 280, 281
 - spermine binding by, 247
 - structure of
 - A form of, 236, 237
 - and base recognition, 237, 238
 - B form of, 236, 237
 - coil form of, 255, 256
 - grooves in, 236-38
 - and histones, 252
 - and magnesium binding, 240, 241
 - and polylysine binding, 249, 250
 - and sequence recognition, 238-39
 - in solution, 237
 - and solvent perturbants, 242-44
 - superhelix in
 - and dye binding, 245
 - and ω -protein, 291, 292
 - of SV40, 504, 507
 - X-ray studies of, 237, 252
 - DNA ligases
 - see Polynucleotide ligases
 - DNA methylase, 292, 293
 - DNA modification
 - by endonuclease K
 - rate of, 458
 - specificity of, 457, 458
 - by endonuclease P, 458
 - by endonuclease RI, 458
 - genetic analysis of
 - complementation, 459-61
 - and DNA restriction, 459
 - genes in, 450, 459-61
 - mapping, 459
 - methylase B
 - in action of, 456, 457
 - requirements of, 456
 - methylase P in, 457
 - methylation in
 - and endonucleases, 449, 457, 458
 - by methylase B, 456, 457
 - by methylase P, 457
 - site of, 449
 - nature of, 448
 - sites of
 - and restriction, 461, 462
 - symmetry of, 462, 463
 - specificity of
 - in diploids, 459
 - genetic studies, 459
 - mechanism of, 462, 463
 - and restriction, 448
 - strain dependence, 448
 - DNA polymerase

- bacteriophage induced, 307
 as melting protein, 263
 mitochondrial, 346
 and mitochondrial DNA, 345
 polymerase I
 and chain elongation, 307
 and colicinogenic factors, 308
 function of, 308
 polymerase II, 308
 polymerase Li, 307
 RNA dependent
 demonstration of, 510, 511
 and transformation, 513
 DNA replication
 ATP role
 in enzyme movement, 305
 and nuclease, 303, 305
 and phosphorylation, 305
 in prefork alignment, 305
 in bacteriophage T4, 480, 483, 487
 base pairing in, 378
 chain growth in
 continuous, 309, 310
 direction of, 306, 310, 313, 316
 discontinuous, 305, 306, 309, 310
 enzymes in, 307
 and initiation, 313
 priming of, 306, 307, 311
 rate of, 321, 322
 symmetry in, 312-15
 chloramphenicol effect, 322, 323
 circularization in, 319
 control of
 in bacteriophage ϕ X174, 315
 and cell division, 321
 and cell growth, 302, 321
 cell wall in, 324, 325
 fork movement in, 321, 322
 initiation of, 322-25
 and methylation, 322
 regulatory proteins in, 322, 323
 timing in, 324, 325
 direction of
 asymmetry of, 318
 in bacteriophage, 316, 318
 in eukaryotes, 318
 enzymes in
 DNA polymerases, 307, 308
 ligases, 308-10
 nucleases, 303, 308
 ω -protein, 308
 unwinding proteins, 308
 estrogen effect, 204
 growth point in
 and discontinuous growth, 309, 310, 312
 and replication fork, 302, 303, 306
 symmetry at, 310-12
 inhibitors of, 303
 initiation of
 cell wall in, 324, 325
 defects in, 323
 mechanism of, 319
 and methylation, 322
 models of, 313, 319
 nuclease in, 319
 premature, 313
 proteins in, 322, 323
 and RNA synthesis, 323, 324
 timing of, 324, 325
 integrative suppression in, 320
 in vitro systems
 agar system, 302
 membrane systems, 302, 303
 permeable cells, 303
 and replication synthesis, 302, 303
 types of, 302-4
 mechanism of
 chain growth, 305-12
 and chromosome growth, 312-21
 discontinuous, 305, 306
 initiation, 313
 precursors of, 304, 305
 mitochondrial
 control of, 345, 347
 D loops in, 344-46
 and glucose repression, 347
 and nuclear DNA, 347
 repair, 346
 replicative intermediates, 344, 345
 semiconservative, 345
 timing of, 346, 347
 models of
 dichotomous, 312, 313
 and initiation, 313
 knife and fork, 306, 311
 prefork, 306, 307, 311
 rolling circle, 312, 313
 nuclease role
 and ATP, 303
 in elongation, 308
 origin of
 in bacteriophage, 315, 316
 in *E. coli*, 316, 317
 and F factors, 316, 317
 replicon hypothesis, 315
 in *Salmonella*, 317
 penicillin effect, 324
 in permeable cells, 302
 in polyoma virus, 507
 precursors of
 ATP role, 305
 nucleotides as, 304, 305
 3'-triphosphate as, 304
 priming of
 and polymerase requirements, 306, 307
 and replication models, 311
 and RNA, 311
 progesterin effect, 215
 and protein synthesis, 322, 323
 replication fork in
 asymmetry of, 305, 306, 310, 312
 and growth point, 302, 303, 306
 movement of, 321, 322
 origin of, 315-17
 and restriction endonucleases, 322, 455
 and rifampicin, 311, 324
 in RNA tumor viruses, 511
 structures in
 chromosomal, 325
 genetic evidence for, 327
 lipids in, 325
 membranes, 325-27
 proteins in, 325
 RNA in, 325
 specificity of, 326
 in SV40, 507
 DNA restriction
 S-adenosylmethionine requirement
 and DNA replication, 455
 and endonuclease K, 451, 452, 454, 455
 role of, 449, 454, 455
 ATP requirement
 by endonuclease B, 452, 454
 by endonuclease K, 450-52, 454
 and hydrolysis, 452, 453
 role of, 449, 455, 456
 endonuclease B in
 action of, 452, 453
 ATP hydrolysis by, 453, 456
 requirements of, 452, 454
 endonuclease K in
 action of, 451, 452

- S-adenosylmethionine requirement, 451, 452, 454
 ATP requirement of, 450-52, 454, 456
 complementation of, 460
 DNA building of, 452
 methylase activity of, 457, 458
 modification activity of, 451
 subunits of, 451
 endonuclease P in, 453-55, 458
 and endonuclease RI, 453, 454, 458
 and endonuclease RII, 453, 454
 genetic analysis of
 complementation, 459-61
 and DNA modification, 459
 genes in, 450, 459-61
 mapping, 459
 restrictionless mutants, 459
 hemophilus endonuclease in, 454
 methylation in, 322
 nature of, 448, 449
 nucleases in
 action of, 449, 451, 452
 and methylation, 449, 452
 nonspecific, 449
 requirements of, 450-53
 sites of
 in *E. coli*, 461, 462
 in *Hemophilus*, 461
 and modification, 461, 462
 symmetry of, 461-63
 specificity of
 in diploids, 459
 genetic studies, 459
 in *Hemophilus*, 449
 mechanism of, 462-64
 and modification, 448
 strain dependence, 448
 Dopamine β -hydroxylase
 in adrenergic neurons, 932
 in granules, 930, 931
 as membrane marker, 931, 932
 release of, 930-32
 Down's syndrome, 561
 Dynein, 608
- E
- Egg albumin
 carbohydrate of, 680, 684
 as phosphoglycoprotein, 675
- Ehrlich ascites cells
 phospholipid biosynthesis in, 131
 plasmalogen synthesis in, 133
 transport in
 of amino acids, 784
 energy required, 804
 Elastase
 and homologous proteinases, 660
 structure of, 660
 X-ray structure of, 816
 Elastin
 crosslinking of
 aldol in, 641-43, 656
 amino adipic semialdehyde in, 641, 642, 653, 654
 biosynthetic relationships, 661
 compound 285 in, 648, 659
 dehydrolysinonorleucine in, 641, 642, 655
 dehydromerodesmosine in, 641, 644, 657
 desmosines in, 641, 646, 658
 dihydrosdesmosines in, 641, 645, 658
 disulfide, 653
 and hydroxylysine, 642, 652
 lysine in, 641, 642, 653
 lysinorleucine in, 641, 642, 655, 656
 and maturation, 641, 652
 merodesmosine in, 641, 644, 657
 nomenclature of, 663, 664
 penicillimine effect, 654
 tetrahydrosdesmosines in, 647, 658
 elastic nature of, 651
 electronmicroscopy of, 651, 652
 microfibrils in, 651, 652
 organization of, 651
 precursors of
 composition of, 641
 crosslinking of, 640, 641
 occurrence of, 640
 sequences in, 651
 sequences in, 651
 structure of, 651
 Electronmicroscopy
 of animal viruses, 493
 of bacteriophage ϕ X174, 476
 of bacteriophage PM2, 492
 of bacteriophage T4
 and tail assembly, 487
 tail fibers, 489
 of collagen, 627, 629
 of DNA, 251
 of elastin, 651
 of lipoproteins, 706, 710, 714, 718, 719, 721, 722, 725, 726
 of liposomes, 755
 of membranes
 freeze-fracture in, 756
 for identification, 755
 of ribosomes, 394
 of TMV discs, 469
 of transcription, 438
 of turnip yellow mosaic virus, 472
 Electron spin resonance
 of ethanolamine deaminase, 68, 69
 of influenza virus, 494
 of lipoproteins, 708, 710
 of ribonucleotide reductase, 72-74
 Electrophorus
 electric organ of, 11, 12, 926, 935-38
 electroplax of, 926
 Encephalitogen, 676, 683
 Encephalomalacia, 182, 183
 Endonuclease B
 action of, 452, 453
 ATP hydrolysis by, 453
 requirements of, 452, 454
 Endonuclease K
 action of, 451, 452
 complementation of, 460
 DNA binding of, 452
 methylase activity of
 rate of, 458
 specificity of, 457, 458
 modification activity of, 451, 452
 requirements of, 450-52, 454
 subunits of, 451
 Endonuclease P, 453-55
 Endonuclease RI, 453, 454, 458
 Endonuclease RII, 453, 454
 Endoplasmic reticulum
 proteins of
 heterogeneity of, 740
 properties of, 734, 735
 structural, 739
 Enniatins, 766
 Enzyme defects
 and amniocentesis, 559-61

- and biochemical disturbance, 548, 549
- demonstration of, 549
- and genetic heterogeneity, 544, 547-51
- and lysosomes, 551-57
- and pathology, 562, 563
- prenatal diagnosis of, 559-62
- treatment of, 564-67
- and vitamins, 557-59
- Epinephrine
 - and cyclic AMP synthesis, 928
- Erythroblastosis, 559
- Erythrocytes
 - lipids of, 754
 - lysis of, 771
 - membranes of, 857
 - phospholipids of, 146
 - and vitamin E, 187
 - see also Red blood cells
- Erythromycin, 392
- Escherichia coli
 - alkaline phosphatase of, 104
 - arabinose operon of, 271, 272, 411
 - aspartokinases of, 31, 32
 - bacteriophage λ of
 - operator of, 273-75
 - repressor of, 272-75
 - DNA modification in
 - and bacteriophage, 448
 - genetic analysis, 450, 459-61
 - methylation, 449, 456-58
 - sites of, 461, 462
 - strain dependence, 448-50
 - systems of, 448-50
 - DNA polymerases of, 307, 308
 - DNA replication in
 - discontinuous, 309, 310
 - and integrative suppression, 320
 - membranes in, 326
 - nuclease role, 303
 - origin of, 316, 317
 - and RNA synthesis, 324
 - DNA restriction in
 - and bacteriophage, 448
 - and endonucleases, 450-54
 - sites of, 461, 462
 - strain dependence, 448
 - systems of, 448-50
 - galactose operon of, 271
 - lac operon of
 - control of, 411
 - inducers of, 265
 - operator of, 266-69
 - repressor of, 232, 233, 264-70
 - methytransferase of, 79
 - polynucleotide ligase of, 308-10
 - regulation in
 - negative, 411
 - positive, 411
 - ribosomes of
 - reconstitution of, 388, 389
 - structure of, 387, 391, 393, 394
 - RNA polymerase of
 - function of, 277
 - initiation by, 232, 271, 275, 278-87
 - physical properties of, 277, 278
 - transcription in
 - and bacteriophage, 416-20, 422-30
 - and RNA polymerase, 411-16
 - transport in
 - of alkali metals, 780, 781
 - of amino acids, 779, 780, 784-87, 789, 791-93
 - of arabinose, 797
 - of arginine, 791, 792
 - of galactose, 779, 796, 797
 - of glucose, 794, 795
 - of glutamic acid, 792, 793
 - of isoleucine, 786-88
 - of lactose, 795, 797, 798
 - of leucine, 779, 786-88
 - of lysine, 791, 792
 - of β -methylgalactosides, 796
 - of phosphate, 782, 783
 - phosphotransferase system, 798
 - of proline, 786
 - regulation of, 793, 794
 - of tryptophan, 779, 780, 790, 791
 - of valine, 786-88
- Estradiol
 - and liposomes, 770
 - and lysosomes, 221
- Estrogens
 - and chromatin, 205, 209, 212
 - and histone synthesis, 206
 - nuclear binding of
 - and chromatin, 209, 212
 - cytosol dependence, 211, 212, 220
 - localization of, 208, 209
 - receptor complex for, 209-12
 - temperature effect, 210, 211
- primary effects of, 204
- and progestins
 - binding of, 215-17
 - receptor for, 217
- and protein synthesis
 - and RNA synthesis, 204, 205
 - time course, 204
 - of uterine proteins, 206
- and puromycins, 205, 208
- receptor proteins for
 - binding by, 212, 213
 - isolation of, 213, 214
 - lipid in, 212
 - nature of, 212
 - stability of, 213, 214
- receptors of
 - and age, 207
 - formation of, 211, 212
 - inhibition of, 207, 208
 - in vitro action, 208
 - localization of, 208-10, 220
 - and metabolism, 206, 207
 - nature of, 212
 - number of, 210, 212
 - sedimentation of, 209
 - structural requirements, 208
 - temperature effect, 210
 - and tissue response, 206, 207
- and RNA synthesis
 - mechanism of action of, 205, 221
 - and protein synthesis, 204, 205, 222
 - rate of, 204, 222
 - and RNA polymerase, 204-6, 222
 - and uterine growth, 205
 - and RNA transport, 205
 - and tRNA methylase, 205
- Ethanolamine deaminase
 - coenzyme binding, 67
- deoxyadenosylcobalamin of
 - binding of, 67
 - and deoxyadenosine formation, 56, 69, 70
 - and inactivation, 68
 - reaction of, 66, 67
- electron spin resonance of, 68, 69
- mechanism of, 67
- Ethidium bromide
 - DNA binding of
 - by intercalation, 244, 245
 - specificity of, 855
 - and winding, 245, 855
 - as fluorescence probe, 855

mutagenesis by, 366
RNA binding of, 855
Euglena
mitochondrial DNA of, 337
Evernitrose, 973

F

Fabry's disease
and amniocentesis, 987
ceramide trihexosidase in, 545, 552, 555, 565, 987
 α -galactosidase in, 987
prenatal diagnosis of, 561
Farber's lipogranulomatosis, 552, 556
fd virus, 468, 469
Ferredoxin, 736
Ferredoxin-NADP reductase, 736
Ferrichromes, 917
Ferritin, 110
Ferrochelatase, 112
Fetuin, 688
Filipin, 766, 767
Flavodoxin
FMN in, 832
oxidation states in, 832
structure of, 832
X-ray crystallography of, 816, 832, 833
Flavones, 972
Fluorescence
characteristics of, 843
in immunochemistry, 853-55
probes for
anilinonaphthalene sulfonate as, 844-50, 854, 857-59
definition of, 843
hydrophobic, 844, 847
in immunochemistry, 853-55
inorganic, 856, 857
and membranes, 857-60
and nucleic acids, 855, 856
and protein aggregation, 852
and protein conformation, 851, 852
protein interactions of, 850-53
and quantum yield, 847
and red shift, 844-47
and solvent, 844-48
theory of, 844-48
types of, 844, 861-63
and viscosity, 849
and zymogen activation, 852, 853
in proton transfer, 848
theory of
binding of, 849, 850
charge transfer in, 845,

846
and environment, 844, 845, 847
and quantum yield, 847
and red shift, 844-47
and solvent, 844-48
and temperature, 846
and viscosity, 849
Fluorescence spectroscopy, 707, 710
FMN
in flavodoxin, 832
FMNH₂
in methyl-THF homocysteine methyltransferase, 79
Follicle stimulating hormone, 688, 696
Formycin synthesis, 972
 β -Fructofuranosidase, 106
Fructose
keto form of, 982, 983
preparation of, 981
transport of, 798
Fructose 1,6-diphosphatase
conformation of, 852
deficiency of, 546, 548
lead effect, 110
Fructose 1-phosphate aldolase
deficiency of, 545, 548
Fructosuria, 545
Fucosidosis, 545, 552, 556
Fusiococcin, 975

G

Galactokinase
deficiency of, 545
and galactose transport, 797
and lactose transport, 795
mechanism of, 40
Galactose
isomers of, 982
mass spectrum of, 971
transport of, 779, 795-97, 802
uptake of, 977
Galactosemia
correction of, 566
deficiency in, 545, 551, 566, 568
prenatal diagnosis of, 561
symptoms of, 547
Galactose 1-phosphate uridylyltransferase
in galactosemia, 545, 566, 568
variants of, 549
 α -Galactosidase
action of, 985

in Fabry's disease, 987
 β -Galactosidase
in gangliosidosis, 545, 555
in mucopolysaccharidoses, 554
repressor of, 529
in sphingolipid breakdown, 554, 555
synthesis of
and CAP, 431-33
control of, 431-33
Galactosyltransferase, 735, 764
Gangliosides
breakdown of, 554
in Tay-Sach's disease, 554, 696
Gangliosidosis
hexosaminidase in, 545, 546, 550
identification of, 545, 548, 552, 555
Gastroferrin, 692, 693
Gaucher's disease
glucocerebrosidase in, 545, 550, 555
as lysosomal disorder, 552
Genetic diseases
and amniocentesis, 559-61
clinical observation of, 544, 547
and genetic heterogeneity, 544, 547-51
and lysosomes, 551-57
nomenclature of, 548, 549
and pathology, 562, 563
prenatal diagnosis of, 559-62
secondary effects of, 548, 549
treatment of, 564-67
vitamins in, 557-59
Globosides
breakdown of, 554
structure of, 987
 γ G-Globulin
amino acid sequence in, 676
carbohydrate of, 695
glycosylation of, 675, 684
Glucamylase, 684, 985
Glucocerebrosidase
in Gaucher's disease, 545, 550, 555
Glucokinase
as isoenzyme, 32
mechanism of, 43
metal ion requirement, 33
thiol groups of, 31, 45
Gluconate dehydrogenase, 106
Glucose
configuration of

- proof of, 959
and X-ray analysis, 960
inversion of, 981
and leucine transport, 779
mass spectroscopy of, 970,
971
NMR studies of, 968
and sucrose phosphorylase,
987
transport of
and fluorodeoxyglucose,
977
in microorganisms, 794-96,
798
and mutarotase, 984
systems for, 794, 795,
798
uptake of, 977
Glucose oxidase
cadmium effect, 105
and deoxyfluoroglucose,
977
specificity of, 986
Glucose 6-phosphatase
deficiency of, 545
mercury effect on, 98
Glucose 1-phosphate, 978
Glucose 6-phosphate dehydro-
genase
cadmium effect, 105, 106
deficiency of, 545, 551,
558
and glucose transport, 795
Hektoen variant of, 551
lead effect, 109, 110
variants of, 544, 549,
551
Glucose phosphate isomerase,
989
 β -Glucosidase
in Gaucher's diseases,
545
Glucosidases
action of, 985
inhibition of, 973
 β -Glucuronidase, 98
Glucuronyltransferase
in hyperbilirubinemia, 545,
548, 564
Glutamate formiminotransfer-
ase
cadmium effect, 105
deficiency of, 545
Glutamate mutase
deoxyadenosylcobalamin of
and deoxyadenosine forma-
tion, 56, 60
role of, 55, 56
distribution of, 56, 57
Glutamic acid transport, 792,
793
Glutamic dehydrogenase
conformation of, 852
dissociation of, 852
lead effect, 109, 110
Glutamic oxaloacetic transam-
inase
cadmium effect, 106
lead effect, 109
mercury effect, 98
Glutamic pyruvate transam-
inase, 109
Glutaminase, 98
Glutamine synthetase
conformation of, 878
X-ray analysis of,
817
Glutamine transport, 792
Glycerokinase, 31
Glycerol dehydrase
deoxyadenosylcobalamin
in, 66
mechanism of, 66
purification of, 66
reactions of, 66
Glycerol kinase, 977
Glycerol phosphate
acylation of, 135-39
selectivity of, 135-
37
stepwise, 137, 138
Glycerol phosphate dehydro-
genase
cadmium effect, 106
substrates for, 977
Glycine transport, 784-86
Glycocyamine kinase, 31,
45
Glycogen
glycoprotein in, 675
Glycogen storage diseases
enzyme defects in,
545
 α -1,4-glucosidase in, 545,
556
identification of, 547,
552
number of, 545, 548
phosphorylase kinase in,
545, 548
Glycoproteins
antifreeze, 676, 681,
689
in basement membranes,
637, 638
carbohydrate structure in
and allergenicity, 689
and amino acid sequence,
679, 682-84
and antifreeze properties,
689
and catabolism, 688, 689,
696
composition, 693, 695
and function, 688, 695,
696
heterogeneity of, 684,
688, 696
and protein export,
690
synthetic, 685
and tertiary structure,
697
catabolism of, 688, 689,
696
composition of, 693
of glycogen, 675
glycopeptide links in
amino acids in, 673,
674
and L-arabinose, 675
evolution of, 673
and glycosidases, 696
glycosylation of
amino acids involved, 673,
674
asparagine in, 673-79, 682,
683, 695
in basement membranes,
639
cysteine in, 673, 674,
676
and further modification,
675
hydroxylysine in, 673-76,
683, 690
hydroxyproline in, 673, 674,
683
on polyribosomes, 691
and protein export, 690
and protein structure, 677,
679, 682-84
serine in, 673, 674, 676,
682-84, 692
silk, 640
specificity of, 639
threonine in, 673-76, 682,
684, 689, 692
in membranes, 734, 740,
744, 745, 747
mucins
dissociation of, 692
gastric, 686, 687, 691,
692
molecular weight, 694
sialic acid in, 694
submaxillary, 676, 681,
682, 688, 691
sulfate in, 694
in myelin, 737
phosphorylation of, 675,
679
in plasma membrane, 745
primary structure of
and glycoprotein formation,
677, 679, 682-84
at glycosylated residue,
676
prosthetic groups of
limits of, 677
size of, 675, 677
of sputum, 694
in virus envelopes, 738, 746,
747
Glycosaminoglycans
biosynthesis of, 553
see also Mucopolysaccharides
Glycosidases
in Fabry's disease, 987
and glycoprotein breakdown,
696

- and glycosyl transfer, 986
- in oligosaccharide synthesis, 986
- specificity of
 - anomer released, 984, 985
 - and fluorinated sugars, 976, 977
 - synthetic, 986
- Glycosylation
 - of basement membranes, 639
 - of Bence-Jones proteins, 690, 691
 - of collagen, 639, 640
 - of flavones, 972
 - of glucamylase, 684
 - of glycoproteins
 - amino acids involved, 673, 674
 - asparagine in, 673-79, 682, 683, 695
 - in basement membranes, 639
 - cysteine in, 673, 674, 676
 - and further modification, 675
 - hydroxylysine in, 673-76, 683, 690
 - hydroxyproline in, 673, 674, 683
 - on polyribosomes, 691
 - and protein export, 690
 - and protein structure, 677, 679, 682-84
 - serine in, 673, 674, 676, 682-84, 692
 - silk, 640, 683
 - specificity of, 639
 - submaxillary, 682
 - threonine in, 673-76, 682, 684, 689, 692
 - of immunoglobulins, 675, 683, 684
 - of keratan sulfate, 682
 - of α -lactalbumin, 679, 684
 - in membranes, 695
 - of myelin, 737
 - of orosomucoid, 675
 - of ribonuclease, 683, 684
 - of silk, 640, 683
 - of Sindbis virus, 494
 - of submaxillary glycoproteins, 682
 - of thyroglobulin, 691
 - of tropocollagen, 676
- Glycosyltransferases
 - and virus envelopes, 494
- Glycyl-glycine dipeptidase, 106
- Gout
 - hypoxanthine phosphoribosyl-transferase in, 546, 548, 550
- identification of, 547, 548
- Gramicidin
 - conformation of, 878
 - hydrogen exchange of, 912
 - and membranes, 766
- GTP
 - in protein synthesis, 380, 381, 393, 403, 404
- Guanosine tetraphosphate
 - in RNA synthesis, 434
- H
- Haptoglobin, 658
- Heavy meromyosin
 - actin binding of, 601
 - and actin polymerization, 585
- ATPase of, 601
- light chain in, 580
- terminus of, 581
- HeLa cells, 732, 740
- Helenine, 520
- α -Helix
 - in high density lipoproteins, 707
 - and hydrogen exchange, 916
 - in low density lipoproteins, 714, 715
 - in polyamino acids
 - and circular dichroism, 879
 - and helix-coil transitions, 882-90
 - and MNR studies, 881
 - and optical rotatory dispersion, 879
 - in solid state, 873
 - transitions of, 891
- Hemerythrin, 97
- Hemoglobin
 - Bohr effect in
 - diphosphoglycerate effect, 822, 823
 - in lamprey, 826
 - mechanism of, 818, 819
 - nature of, 818
 - and X-ray analysis, 818
 - breathing of, 918
 - cooperative oxygen binding
 - and deoxyhemoglobin structure, 819-21
 - and diphosphoglycerate, 819, 822, 823
 - and heme ligation, 823
 - in lamprey, 826
 - mechanism of, 818-23, 825, 826
 - nature of, 818
 - NMR studies, 823, 825
 - sequence of, 822
 - subunits in, 819, 820, 822
 - and X-ray analysis, 816, 818-21
 - diphosphoglycerate binding
 - of, 819, 820, 822, 823
 - dye binding of, 844, 850
 - heme in, 824, 831
 - lamprey
 - Bohr effect in, 826
 - dissociation of, 826, 827
 - model of, 826, 827
 - oxygenation of, 826, 827
 - variants of, 544
 - Hemophilus influenzae
 - restriction endonuclease of
 - magnesium requirement, 449
 - mechanism of, 292
 - and modification, 449
 - specificity of, 292, 450, 454, 461
 - Heparan sulfate, 552, 553
 - Hereditary fructose intolerance, 545, 551
 - Herpes virus
 - envelope of, 493, 494
 - proteins of, 738
 - shape of, 493
 - structure of, 474
 - Hexokinase
 - in anemia, 546
 - ATPase of, 40, 41, 43
 - brain, 31, 41
 - isoenzymes of, 32
 - kinetics of, 41
 - mechanism of, 40, 41
 - metal ion requirement, 33, 34
 - phosphorylated complex of, 43
 - specificity of, 48
 - substrates of, 36, 40
 - thiol groups of, 31, 45
 - Hexosaminidase
 - in gangliosidosis, 545, 546, 550, 555
 - in Tay-Sach's disease, 545, 555, 561
 - Hexose phosphate isomerase, 795
 - Histidase
 - in amniotic cells, 560
 - in histidinemia, 546
 - Histidine ammonia lyase, 105
 - Histidinemia
 - histidase in, 546
 - symptoms of, 547
 - Histidine transport, 788, 789, 802, 803
 - Histones
 - aggregation of, 852
 - DNA interaction of
 - in chromatin, 253

- displacement of, 252
 - electronmicroscopy of, 251
 - nature of, 248, 252, 253
 - and spectral properties, 252
 - and thermal stability, 252
 - in interferon induction, 527
 - as repressors
 - and promoter sites, 253
 - role of, 252
 - sequences of, 252, 253
 - synthesis of, 206
 - variety of, 252
 - Homocystinuria
 - and corrinoid coenzyme formation, 60
 - and cystathionine synthetase, 546, 559
 - identification of, 547
 - and methyl THF-homocysteine methyltransferase, 80
 - pyridoxine effect, 559
 - treatment of, 564
 - Hunter's syndrome
 - identification of, 548, 552
 - prenatal diagnosis of, 561
 - treatment of, 565
 - Hurler's syndrome
 - identification of, 548, 552
 - prenatal diagnosis of, 561
 - treatment of, 565
 - Hydrogen exchange
 - in amide groups
 - and apolar polymers, 914, 915
 - catalysis of, 909, 910, 913
 - inductive effects, 910
 - and models, 909, 910
 - in myoglobin, 916
 - rates, 910-12
 - solvent effect, 913
 - substituent effect, 910
 - temperature effect, 912
 - apolar polymer effect on
 - and viscosity, 915
 - and water, 914, 915
 - and breathing
 - alternatives to, 917, 918
 - analysis of, 918, 919, 921
 - concept of, 917, 918
 - in DNA, 245
 - isotope effect, 914
 - mechanism in, 919, 920
 - size of segments, 920, 921
 - catalysis of
 - and amide groups, 909, 910
 - by buffer, 909
 - internal, 909
 - and nucleotides, 910
 - and protein side chains, 906, 909
 - and rates, 905-9
 - chemistry of
 - carbon-bound hydrogens, 907
 - catalysis in, 905
 - pathways of, 905
 - primary reactions, 905, 906
 - proton transfer theory, 905-7
 - rate constants, 906, 907
 - in collagen, 916
 - in DNA, 245
 - isotope effects, 913, 914
 - measurement of
 - freeze drying, 904
 - by gel filtration, 904, 905
 - by infrared spectroscopy, 904, 905
 - by NMR, 904, 909
 - in myoglobin, 915, 916, 920
 - in nucleic acids
 - isotope effect, 914
 - and structure, 245, 917
 - and temperature, 912
 - of nucleotides, 910
 - in proteins
 - amides of, 909-12
 - and breathing, 914, 917-21
 - catalysis of, 905-10
 - and α -helix, 916
 - isotope effects, 913, 914
 - measurement of, 904, 905
 - side-chain effect, 908, 909, 911, 912
 - solvent effects, 913
 - and structure amounts, 916, 917
 - and structure change, 921, 922
 - temperature effect, 912
 - and protein side chains
 - catalysis in, 908, 909
 - rates, 908
 - in ribonuclease, 911, 913, 915, 921
 - solvent effects, 913
 - and structure change, 921, 922
 - temperature effect, 912
 - 25-Hydroxycholecalciferol, 180
 - Hydroxyllysine galactosyltransferase
 - and silk glycosylation, 683
 - Hyperammonemia
 - causes of, 548
 - deficiency in, 546
 - ornithine transcarbamylase
 - in, 546, 550
 - Hyperbilirubinemia
 - and glucuronyltransferase, 545, 564
 - identification of, 548
 - Hyperglycemia, 546, 548
 - Hyperlipoproteinemia, 546
 - Hyperlysinemia, 546, 567
 - Hyperoxaluria, 546, 548
 - Hypertension, 108
 - Hyperuricemia
 - identification of, 547
 - and xanthine oxidase, 547, 564
 - Hypo- β -lipoproteinemia, 722
 - Hypotauro cyamine, 31
 - Hypoxanthine phosphoribosyltransferase
 - deficiency of, 548-51, 565, 566
 - in gout, 546, 548, 550
 - in Lesch-Nyhan syndrome, 546, 549, 550, 563, 567, 568
- I
- Immunoglobulins
 - glycosylation of, 683
 - Indomethacin, 168
 - Influenza virus
 - lipids of, 494
 - proteins of, 738
 - receptor for, 742
 - shape of, 493
 - structure of, 474
 - Infrared spectroscopy
 - and hydrogen exchange measurement, 904, 905
 - of low density lipoproteins, 715
 - Insulin
 - X-ray analysis of, 817
 - Integrative suppression, 320
 - Interferon
 - aggregation of, 527
 - and antiviral protein
 - RNA polymerase effect, 535, 536
 - synthesis of, 526, 527, 533, 534
 - definition of, 517, 518
 - inducers of
 - and actinomycin, 521, 527, 530, 531
 - administration of, 536
 - as antiviral agent, 536-38
 - bacteriophage T4, 523, 524
 - and base sequence, 523
 - and cross tolerance, 530
 - DNA as, 523, 524
 - double-stranded RNA, 519-22

- helenine, 520
 and histones, 527
 hybrids as, 523, 524
 2'-hydroxyl role, 523
 methylation of, 522
 plastic, 519
 poly rI:C, 520-23, 537, 538
 recognition of, 522-24, 527
 and ribonuclease, 522
 RNA, 519-25
 statolon, 519, 528, 532, 536, 538
 structural requirements, 521-25
 tilorone, 525
 toxicity of, 537, 538
 viruses as, 517-19, 538
 mechanism of action of
 and antiviral protein, 526, 534
 and cell metabolism, 526, 534
 and polymerases, 535
 and ribosome structure, 534, 535
 and RNA polymerase, 535, 536
 in translation, 534
 nuclease activity of, 533
 physicochemical properties, 518
 production
 enhancement of, 532
 inducers of, 518-25
 inhibition of, 532
 kinetics of, 528
 lymphocytes in, 517
 by reticuloendothelial cells, 517, 518
 superinduction, 530-32
 purification of, 518
 regulation of
 derepression in, 525
 genes for, 527
 model of, 526, 527
 priming, 532, 533
 refractory state in, 528-30
 repressor in, 526, 527
 superinduction, 530-32
 repressor of
 as aggregate, 529, 530
 and interferon synthesis, 522, 526, 527, 529
 as recognition molecule, 527
 synthesis of, 531
 specificity of, 518
 subunits of, 528, 529
 superinduction of
 by inhibitors, 530, 531
 mechanism of, 531, 532
 synthesis of
 forms of, 528, 529
 inhibitors of, 528
 refractory state in, 527-30
 repressor of, 522, 526, 527, 529
 stimulation of, 527
 uptake of, 532, 533
 Ionophores
 as carriers, 766, 767
 nature of, 766
 Isocitrate lyase, 106
 Isoelectric focusing, 719
 Isoenzymes, 32
 Isoleucine transport, 786, 787
- K
- Kaiser Wilhelm Institutes, 4, 6-9
 Kasugamycin, 390, 391
 Keratan sulfate
 carbohydrate of, 684, 686
 excretion of, 552, 553
 glycosylation of, 682
 α -Ketoglutarate dehydrogenase, 817
 Kinin
 and inflammatory response, 168
 and vasodilatation, 167
 Krabbe's disease, 546, 552, 555
 Kynureninase, 547, 559
- L
- Lac operon
 control of
 and catabolite repression, 431
 and cyclic AMP, 431-33
 and lac repressor, 411
 negative, 411, 431, 432
 positive, 431
 and cyclic AMP, 270, 271, 431-33
 inducers of, 265
 operator of
 mutants of, 269, 270
 positive regulation of, 270, 271
 repressor interactions of, 266-69
 structure of, 268, 270
 repressor of
 inducer interactions of, 265, 266
 mutants of, 269
 operator interactions of, 266-69
 as protein, 264, 265
 specificity of, 232, 233, 264
 and RNA polymerase, 271
 transcription of
 and CAP, 431-33
 control of, 411, 431-33
 in vitro, 432
 Lac repressor
 action of, 411
 allosterism in, 266
 inducer interactions of, 265, 266
 mutants of, 269
 operator interactions of
 assay of, 266, 267
 magnitude of, 266-68, 275
 rates of, 268, 269, 275, 276
 specificity of, 267, 268, 275
 as protein, 264, 265
 specificity of, 232-34, 264
 α -Lactalbumin, 679, 684
 Lactase, 985
 Lactic dehydrogenase
 dissociation of, 852
 lead effect, 109
 mercury effect, 98
 and transport, 805
 X-ray analysis of, 817
 Lactobacillus leichmanii
 ribonucleotide reductase of, 72-75
 Lactose
 mass spectrum of, 971
 transport of, 795, 797, 798
 see also Lac operon, Lac repressor
 Lactose permease, 735
 Lactosylceramidosis, 546, 552, 555
 L cells
 membranes of, 732, 740
 Lead
 albumin complex of, 109
 amino acids, interaction with, 95, 109
 biochemical features of, 94, 95
 chemical properties of, 94, 95
 distribution of, 108, 109
 enzyme enhancement by, 109
 enzyme inhibition by, 109, 110
 ferritin binding of, 110
 and membranes, 113
 and mitochondria, 109, 110
 and nucleic acids

- chromosomal abnormalities, 111
- hydrolysis of, 110, 111
- and protein synthesis, 110, 111
- organometallics of, 94
- and porphyrin synthesis abnormalities in, 111, 112
- enzyme inhibition in, 112
- and globin synthesis, 112, 113
- pathways of, 111
- toxicity of
- and δ -aminolevulinic acid dehydrase, 109, 112, 114, 115
- antagonistic effects, 116
- in man, 112, 114
- to microorganisms, 113, 114
- symptoms of, 115
- Lecithin**
- in lipoprotein reassembly, 711
- urate binding by, 762
- Lecithin-cholesterol acyltransferase**
- deficiency of, 721
- and lipoprotein interrelationships, 720, 723, 724
- in lipoprotein reassembly, 712
- Leigh's syndrome**, 547, 558
- Lesch-Nyhan syndrome**
- hypoxanthine phosphoribosyltransferase in, 546, 549, 550, 563, 567, 568
- pathogenesis of, 563
- prenatal diagnosis of, 561
- Leucine aminopeptidase**
- cadmium effect, 106
- and glycosylated cysteine, 674
- Leucine transport**, 779, 786-88
- Leucocytes**, 858
- Levanucrase**, 986
- Light meromyosin**
- formation of, 580, 581
- myosin aggregation with, 591, 592
- and thick filament structure, 591, 592
- Lincomycin**, 975
- Lipase**
- cadmium effect, 106
- in cytochrome extraction, 829
- Lipid bilayers**
- in myelin, 733
- and protein, 744, 747, 748
- in red cells, 744
- Lipoamide dehydrogenase**
- cadmium effect, 104, 106
- lead effect, 109
- and methyltransferase, 79
- Lipoprotein lipase**
- activation of, 722, 723
- affinity chromatography of, 723
- cofactors of, 723
- in hyperlipoproteinemia, 546
- and lipoprotein interrelationships, 720
- Lipoproteins**
- abnormal
- in hypo- β -lipoproteinemia, 722
- and lecithin-cholesterol acyltransferase deficiency, 721
- LP(a), 722
- in obstructive jaundice, 721, 726
- in Tangier's disease, 721
- in animal species, 722, 734
- functions of
- in cholesterol biosynthesis, 724
- and lecithin-cholesterol acyltransferase, 723, 724
- and lipoprotein lipase, 722, 723
- high density
- definition of, 704
- isolation of, 705
- lipids of, 705, 707
- phospholipase action of, 713
- polypeptides of, 709
- protein of, 705, 707-11
- proteolysis of, 712, 713
- reassembly of, 711, 712
- structure of, 706-8, 724, 725
- subclasses of, 704-6
- substructure in, 706, 725
- succinylation of, 712
- surface of, 712
- in Tangier's disease, 721
- interrelationship of
- and lecithin-cholesterol acyltransferase, 720, 723, 724
- lipoprotein lipase role, 720
- isoelectric focusing of, 719
- lipids of
- composition of, 705, 713
- in reassembly, 711
- role of, 707, 716
- low density**
- aggregation of, 714, 718
- CD of, 714, 715
- composition of, 713
- definition of, 704
- degradation of, 717, 718
- electronmicroscopy of, 714
- isolation of, 713
- lipids of, 713, 716
- modification of, 717
- molecular weight of, 713, 714
- NMR of, 715
- proteins of, 713, 715-18
- reassembly of, 717
- structure of, 714, 715
- succinylation of, 714, 716, 717
- models of**
- high density, 724, 725
- low density, 725, 726
- micellar, 724
- subunits in, 725
- phospholipids of**, 146
- proteins of**
- aggregation of, 710
- composition, 705, 706, 713, 718
- definition of, 704
- heterogeneity of, 708-10
- isolation of, 708, 715, 716, 719, 720
- and reassembly, 711
- structure, 707, 708
- reassembly of**
- and lecithin-cholesterol acyltransferase, 712
- products of, 712
- requirements for, 711
- structure of**
- composition, 705, 706, 713, 718
- high density, 706-8, 724, 725
- low density, 714, 715
- significance of, 705
- very low density, 718, 726
- terminology of, 704
- very low density**
- composition of, 718
- definition of, 704
- isolation of, 718
- protein of, 718-20
- structure of, 718, 726
- Liposomes**
- and cell adhesion, 762
- and complement, 767
- electronmicroscopy of, 755

- and ionophores, 766, 767
- lysis of, 771
- as membrane model, 755-57
- physical studies of, 768, 769
- preparation of, 755
- protein interactions of, 763-65
- sterol incorporation, 769, 770
- surface charge of, 763
- and thyroxine, 770
- X-ray diffraction of, 755, 756
- Lombricine kinase, 31, 45
- Luciferase
 - and dehydroluciferin, 848
 - dye binding of, 850, 851
 - hydrogen exchange of, 921
- Luteinizing hormone, 676
- Lycopene, 713
- Lyon hypothesis, 567, 568
- β -Lysine aminomutase
 - cofactors of, 71, 72
 - deoxyadenosylcobalamin in, 71
 - reactions of, 70, 71
- D-Lysine aminomutase
 - ATP effect, 71, 72
 - deoxyadenosylcobalamin in, 71
 - reactions of, 70, 71
- Lysine betaine, 682
- Lysine transport, 791, 792
- Lysophosphatidylcholine, 705
- Lysophospholipases
 - in brain, 154
 - specificity of, 147, 148, 153
- Lysosomes
 - disorders of
 - characteristics of, 551, 553
 - and enzyme replacement, 564, 565
 - mucopolidoses, 552, 556
 - mucopolysaccharidoses, 552-54
 - sphingolipidoses, 552, 554-56
 - and estradiol binding, 221
 - mercury accumulation in, 99
 - and mucopolidoses, 552, 556
 - and mucopolysaccharidoses, 552-54
 - and sphingolipidoses, 552, 554-56
 - in thalassemia, 553
 - urate binding by, 762
 - and vitamin E deficiency, 184
- Lysozyme
 - conformation of, 878
 - NMR studies, 970
 - stereospecificity of, 985
 - X-ray analysis of, 816
- Lysyl oxidase
 - and copper, 654
 - in crosslinking, 662
- M
- Macroglobulins
 - amino acid sequence in, 676
 - carbohydrate of, 688
 - glycopeptides of, 679
- Magnesium
 - ATP binding of, 34, 35, 37
 - DNA binding of, 240, 241
 - myosin binding of, 599
- Malic dehydrogenase
 - cadmium effect, 105
 - X-ray analysis of, 817
- Manganese
 - ATP binding of, 34, 35
- Mannose
 - mass spectrum of, 971
 - transport of, 798
- Mannose phosphate isomerase, 988, 989
- Mannosidosis, 546, 552, 556
- Marfan's syndrome, 547
- Mass spectrometry
 - of carbohydrates
 - fragmentation patterns, 971
 - and gas chromatography, 970
 - of sugars, 971, 972
- Melibiose transport, 795, 796
- Mellitin
 - membrane interactions of, 763-65
- Membranes
 - acetylcholinesterase in, 15
 - and amino acid transport, 784, 786, 791
 - of animal viruses, 493, 494
 - asymmetry of, 747
 - ATPase of, 734-36, 745, 746, 763, 764
 - bacterial, 746
 - of bacteriophage PM2, 491, 492
 - capacitance of, 756
 - chloroplast
 - composition of, 732, 736, 746
 - permeability of, 102
 - classes of, 732, 733
 - composition of
 - chloroplast, 732, 736, 746
 - classes of, 732, 733
 - and function, 732, 733
 - mitochondrial, 142, 143, 732
 - phospholipids of, 142, 143
 - cytochromes in, 735, 736
 - dissociation of, 740
 - and DNA replication, 302, 303, 325-27
 - and drug action, 857, 858
 - electronmicroscopy of, 755, 756
 - from electroplax, 943
 - erythrocyte, 734, 740-45, 747, 857
 - ferredoxin in, 736
 - fluorescence probes of
 - and drug action, 857, 858
 - excitable, 860
 - in microsomes, 857
 - and models, 858-60
 - and muscle, 858
 - nature of, 858
 - and polymyxin binding, 857
 - functions of
 - evolution of, 759, 760
 - models for, 760
 - proteins in, 731
 - galactosyltransferase in, 735, 764
 - glycoproteins in, 734, 740, 744, 745, 747
 - glycosyltransferases of, 695
 - of granules, 931
 - hydrocarbon region of
 - and cholesterol, 769, 770
 - and permeability, 769
 - properties of, 768, 769
 - and thyroxine, 770
 - ionic region of
 - and cell adhesion, 761, 762
 - and complement, 767
 - components of, 760
 - macromolecule interactions of, 762-65
 - and retinene, 765
 - and solute permeability, 765-67
 - and surface potential, 760, 761
 - ion selectivity of, 757, 758
 - and lactose transport, 797, 798
 - lead effect, 113
 - lipids of
 - composition of, 754, 755

- hydrocarbon region of, 768-71
 ionic region of, 760-67
 and liposomes, 755
 and proteins, 744
 and smectic mesophases, 755-57
 and structure, 733, 737, 739
 water absorption by, 768
 mitochondrial
 composition of, 732
 fluorescence probes of, 858, 859
 and function, 733
 proteins of, 746
 and protein synthesis, 358, 359
 models of
 bimolecular lipid, 754
 fixed charge, 753, 754
 and fluorescence probes, 858, 859
 liposomes as, 755-57
 from myelin, 754
 phospholipids in, 756, 757
 thin films as, 758, 759
 of mycoplasma, 755
 phosphatidylcholine, 113
 and phospholipid biosynthesis
 in microorganisms, 144
 in microsomes, 145
 in mitochondria, 144, 145
 phospholipids of
 biosynthesis of, 143-45
 distribution of, 744
 exchange of, 145-47
 sphingomyelin, 142, 143
 and phosphotransferase system, 798
 postsynaptic, 927, 936, 937
 of presynaptic axons, 927
 proteins of
 arrangement of, 733, 742-44
 ATPase of, 763, 764
 and cell contact, 761, 762
 classes of, 747
 and endoplasmic reticulum, 734, 735, 739, 740
 in erythrocytes, 734, 740-45, 747
 and function, 731-33, 739, 744, 745
 galactosyltransferase, 764
 heterogeneity of, 740
 and lipids, 744
 and membrane structure, 732, 733
 in mitochondria, 733
 in myelin, 732, 733
 in plasma membranes, 732, 734, 735, 739, 740
 properties of, 733, 737, 739
 solubilization of, 739, 740
 structural, 739
 structure of, 754-56
 and virus envelopes, 738, 746, 747
 receptor sites in
 and binding proteins, 803
 isolation of, 778
 structure of
 and lipid, 733
 and protein, 732, 733
 thin films as, 758, 759
 transport in
 of amino acids, 784, 786, 791
 energy requirements, 805, 806
 of lactose, 797, 798
 and lateral migration, 807, 808
 phosphotransferase system of, 798
 unit membrane theory
 lipid role, 754-57
 protein role, 754-57
 in virus assembly, 479
 virus envelopes as, 738, 746, 747
 and vitamin E, 185, 186
 Mercaptalbumin, 97
 Mercury
 albumin, interaction with, 97
 analysis of, 95, 96
 biochemical features of, 94, 95
 chemical properties of, 94, 95
 and chromosomal abnormalities, 99
 detoxification of, 101
 distribution of, 94, 95
 DNA, interaction of, 98, 241
 and enzyme activity, 98
 in fish, 102, 103
 and lysosomes, 99
 methylation of, 83, 99-101
 NADH complex, 96
 nucleotide interactions of, 98
 and oxidative phosphorylation, 99
 protein binding of, 97, 98
 and protein synthesis, 99
 RNA, interactions of, 99
 sulfur interactions of, 97
 and thiamine deficiency, 96
 toxicity
 in organic mercurials, 102, 103
 and resistance, 102
 tryptophan, interaction with, 97
 virus interactions of, 99
 Metachromatic leukodystrophy
 arylsulfatase A in, 546, 552, 555, 565
 enzyme replacement in, 565
 prenatal diagnosis of, 561
 Metallothionein
 cadmium in, 93, 104, 105
 lead binding of, 109
 mercury binding of, 97, 104
 Methane formation
 ATP utilization, 81-83
 corrinoid in, 80, 81
 methyl donors, 82, 83
 and methylmercury formation, 83
 precursors, 80-83
 Methemoglobinemia, 546
 Methionine synthetase, 100
 Methylase B
 and DNA modification, 456, 457
 purification of, 456
 requirements of, 456
 Methylase P, 457
 Methylation
 and S-adenosylmethionine, 449, 457, 458
 and DNA modification, 449, 456-58, 462
 by methylase B, 456, 457
 by myosin, 582
 Methylcobalamin
 and acetate synthesis, 101
 isolation of, 100
 in methylmercury synthesis, 100, 101
 α -Methyleneglutarate mutase
 coenzyme for, 61
 mechanism of, 61, 62
 reaction catalyzed, 60, 61
 Methylmalonic aciduria
 and corrinoid coenzyme formation, 60, 547, 557, 558
 and deoxyadenosylcobalamin metabolism, 59
 and methylmalonyl-CoA mutase deficiency, 546, 558
 prenatal diagnosis of, 562
 and sulfur amino acid metabolism, 59, 60
 symptoms of, 548

- in vitamin B₁₂ deficiency, 57-59, 555
- Methylmalonyl-CoA mutase
 - mechanism of, 60, 85
 - and methylmalonate excretion, 57-59, 546, 547
 - in methylmalonic aciduria, 57-59, 546, 547, 558
 - and tissue methylmalonate, 58
 - and vitamin B₁₂ deficiency, 57, 58
- Methylmercury
 - degradation of, 101-3
 - excretion of, 103
 - and protein synthesis, 99
 - synthesis of
 - enzymatic, 100, 101
 - in industrial waste, 101
 - mechanism, 99, 100, 103
 - and methane synthesis, 101
 - toxicity of, 102
- Methyl THF-homocysteine methyltransferase
 - adenosylmethionine role, 75-78
 - cobalamin in, 75-80
 - demethylated form of, 78
 - in disease, 80, 558
 - methylation of, 76-78
 - reactions of, 76
 - reducing system in, 76-79
 - requirements of, 75
- Mevalonate kinase, 39, 40
- ME virus
 - assembly of, 479
 - structure of, 478
- Micrococcal nuclease, 261
- Miserotoxin, 973
- Mitochondria
 - ATPase of
 - and fluorescence, 859
 - synthesis of, 359, 360
 - biogenesis of
 - and intercalating dyes, 365, 366
 - and mitochondrial DNA, 358, 359
 - systems in, 334
 - calcium transport in, 784
 - DNA of
 - alkali lability of, 337, 338
 - branched, 344-46
 - catenated, 342
 - circular, 335, 344, 345
 - crosslinking of, 338
 - D loops in, 335, 344-46
 - evolution of, 341
 - genes of, 357-64
 - information content of, 339, 340, 355
 - inheritance of, 344
 - methylated bases in, 335
 - minicircles of, 343
 - and nuclear DNA, 342
 - oligomers of, 343
 - properties of, 334, 335
 - in protists, 336, 337
 - renaturation of, 339, 340
 - repair, 346
 - replication of, 319, 344-46
 - replicative intermediates of, 344, 345
 - sequence homologies in, 340-42
 - spacer sequences in, 340
 - strand separation of, 338, 339
 - superhelix in, 335
 - synthesis of, 344-47
 - in tumor cells, 342-44
 - evolutionary origin of, 367, 368
 - lead effect, 109, 110
 - lipids of, 754
 - membranes of
 - and antibiotic resistance, 362
 - composition of, 732
 - fluorescence probes of, 858, 859
 - and function, 733
 - phospholipids of, 142-45
 - proteins of, 733, 746
 - and protein synthesis, 358, 359
 - sphingomyelin in, 142
 - mRNA of
 - half-life of, 353, 354
 - imported, 355, 356
 - polyglycerophosphatide synthesis by, 144
 - protein export by, 356, 357
 - proteins of, 356, 357, 361
 - protein synthesis in
 - and bacteria, 350, 351
 - and intercalating dyes, 366
 - and mitochondrial membranes, 358, 359
 - and mitochondrial ribosomes, 347, 348, 350, 351, 361
 - and mitochondrial synthesis, 358-62
 - products of, 356, 358-64
 - and protein import, 356
 - ribosomes of
 - and antibiotic resistance, 362, 363
 - proteins of, 349
 - and protein synthesis, 348, 350, 351, 361
 - sedimentation of, 348, 349
 - 5S RNA in, 350
 - RNA polymerase of, 290, 354, 355
 - RNA synthesis in
 - and intercalating dyes, 366
 - and RNA polymerase, 354, 355
 - strand selection, 351-53
 - turnover, 353
 - rRNA of
 - genes for, 345, 357, 358
 - methylation of, 350
 - molecular weight, 348, 349
 - in petite mutants, 365
 - 5S, 350
 - sedimentation of, 348, 349
 - turnover of, 353
 - tRNA of
 - gene mapping of, 345, 357, 358
 - heterogeneity of, 339
 - methylated bases in, 351
 - species of, 351
 - turnover of, 353
 - virus replication in, 367
 - and vitamin E, 188, 189
 - and vitamin K, 194
- Monensin, 766
- mRNA
 - of bacteriophage T4, 289, 290
 - ribosomal binding of
 - proteins in, 401
 - site of, 379, 380
 - in thalassemia, 550
 - in transformed cells, 509
 - and vitamin K, 195
 - see also RNA polymerase, RNA synthesis
- Mucopolipidoses
 - identification of, 548, 553, 556
 - as lysosomal diseases, 552, 556
- Mucopolysaccharides
 - biosynthesis of, 553
 - degradation of, 553, 554
 - see also Glycosaminoglycans
- Mucopolysaccharidoses
 - corrective factor, 554, 565
 - enzymatic basis of, 554
 - genetic heterogeneity in, 550, 554
 - identification of, 548, 553
 - types of, 553, 554

- Muramic acid phosphate, 981
 Muremidase, 108
 Muscle proteins
 actin
 polymerization of, 585
 from slime mold, 608, 609
 in thin filaments, 592, 593
 α -actinin
 actions of, 589, 593, 594
 components of, 589
 localization, 590
 β -actinin, 590, 591
 actomyosin
 ATPase of, 583, 586, 589, 600-3
 and red cells proteins, 740, 741
 and spectrin, 741
 superprecipitation, 586, 587, 589
 threads of, 603
 γ -component, 590
 and contraction
 ATP hydrolysis in, 606, 607
 mechanism of, 607, 608
 F-actin
 and α -actinin, 589
 and ATP hydrolysis, 584
 and contraction, 584, 585
 length of, 585
 myosin interaction of, 584
 sonication of, 584
 G-actin
 ATP binding by, 583
 calcium function in, 583
 heavy meromyosin binding, 601
 molecular weight, 582
 myosin interaction of, 584
 nucleotide interaction of, 584
 polymerization of, 583-85
 sequence of, 582, 583
 subunits of, 584
 myofibril suspensions
 ATP binding, 603, 604
 relaxation of, 603, 604
 myosin
 ATPase of, 579, 580, 586, 588, 594-600
 dissociation of, 578
 fragment of, 580
 heavy chains of, 578, 581
 light chains of, 578-80
 methylation of, 582
 model of, 581, 591
 molecular weight, 578
 and muscle structure, 591, 592
 papain action on, 580, 581
 precipitation of, 592
 relaxing site of, 604
 structure of, 581, 582
 paramyosin, 590
 C protein, 590
 M protein, 591
 relaxing protein system
 ATPase activation, 588
 definition of, 586
 in molluscs, 589
 sarcolemmal reticulum
 and ATP hydrolysis, 604-6
 calcium release, 604
 calcium transport, 605, 606
 lysocleithin effect, 605
 phosphorylated intermediate in, 605, 606
 and structure of muscle
 actin in, 592, 593
 α -actinin in, 593, 594
 light meromyosin in, 591, 592
 myosin in, 591, 592
 M protein in, 591
 thick filaments in, 591, 592
 thin filaments in, 592, 593
 tropomyosin in, 592, 593
 troponin in, 592, 593
 tropomyosin
 and α -actinin, 589
 properties, 585
 and thin filaments, 592, 593
 and troponin, 586-89
 tropomyosin B, 585-89
 troponin
 assay of, 586, 588
 and ATPase, 586, 587
 and calcium, 586-89, 604
 components of, 586-88
 configuration of, 589
 and thin filaments, 592, 593
 Muscular dystrophy, 182-84, 187
 Mutarotase
 assay of, 983
 distribution of, 983, 984
 role of, 984
 Mycoplasma membranes, 755, 769
 Myelin
 in branched-chain ketoaciduria, 563
 composition of, 732
 function of, 732, 733
 lipid bilayer in, 733
 as membrane model, 754
 in phenylketonuria, 562, 563
 photomicrographs of, 754
 protein in
 as antigen, 737
 basic, 733, 737
 classes, 733
 and function, 732, 733
 glycosylation of, 737
 methylation of, 737
 proteolipid, 737, 738
 Wolfram, 739
 X-ray diffraction of, 733, 737, 754, 755
 Myelination, 133
 Myeloma proteins, 680, 684
 Myofibril suspensions
 ATP binding, 603, 604
 relaxation of, 603, 604
 Myoglobin
 conformation of, 878
 dye binding of, 844, 850
 hydrogen exchange of, 915, 916, 920
 X-ray analysis of, 816
 Myoinositol, 976
 Myosin
 actin interaction of, 584
 ATPase of
 activation of, 583, 588, 597, 598
 chemical modification of, 598
 configuration of, 599, 600
 and fluorodinitrobenzene, 599
 kinetic scheme, 594-98
 and light chains, 579, 590
 mechanism of, 594-97
 phases of, 594
 phosphorylated intermediate in, 594-97
 rate-limiting step, 596, 597
 SH groups, 597, 598
 spin resonance studies, 597
 calcium binding of, 599
 and calcium sensitizing factor, 582
 dissociation of, 578
 fragments of, 580
 heavy chains of
 backbone of, 581
 number of, 578
 light chains of
 and ATPase of, 579
 composition of, 578, 579
 in fast muscle, 579, 580, 582
 mass of, 578, 579

- number of, 578-80
 peptides of, 579, 580
 in slow muscle, 579, 580, 582
 magnesium binding of, 599
 methylation of, 582
 model of, 581, 591
 molecular weight of, 578
 and muscle structure, 591, 592
 papain action of, 580, 581
 precipitation of, 592
 relaxing site of, 604
 from slime mold, 610
 structure of, 581, 582
Myxoviruses
 and interferon induction
 in lymphocytes, 517
 quantity of, 518
- N**
- NAD**
 and vitamin E, 188, 189
NADH
 mercury complex of, 96
 in phospholipid biosynthesis, 138, 139
NAD kinase
 mechanism of, 40
 metal ion requirement of, 47
NADPH
 in phospholipid biosynthesis
 ether-containing, 130-32
 glycerides, 138, 139
 Nafoxidine, 207-10, 220
 Nagarsase, 599
 Neotropin, 246
 Neuraminic acid, 979, 980
 Neuraminidase, 979, 980
Neurospora crassa
 glucose transport in, 794, 795
 mitochondrial DNA of, 336, 339
 poky mutant of, 364
 RNA polymerase of, 290
 tryptophan transport in, 791
Neurotransmitters
 function of, 925, 926
 and nerve cell structure, 926
 preparations for study, 926, 927
 receptors for
 and acetylcholine, 936-48
 affinity reagents for, 939, 940
 binding to, 937, 941-43
 as protein, 939
 release of
 in adrenal medulla, 929-32
- anatomy of, 933
 and calcium, 927, 928, 932
 and compartmentalization, 933-36
 and cyclic AMP, 928
 detection of, 927
 and exocytosis, 930-33
 and peroxidase uptake, 933
 quantal, 927-29
 spontaneous, 928
 and vesicles, 929, 930, 932, 933
 and synapse morphology, 927
Newcastle disease virus
 in interferon induction, 519, 538
 structure of, 474
Nickle, 35
Nicotinic acid, 61
Niemann-Pick disease
 prenatal diagnosis of, 561
 sphingomyelin in, 547, 552, 554
 types of, 552, 555
Nigericin, 766
Nojirimycin, 973
Nonketotic hyperglycinemia, 546, 567
Norepinephrine
 and adrenergic transmission
 release of, 928, 932, 933
 tissues studied, 926, 927
 compartmentalization of, 935
 and cyclic AMP synthesis, 928
 particulate, 932
 and prostaglandins, 169
 release of
 from compartments, 935, 936
 and exocytosis, 932, 933
 quantal, 928
 and vesicles, 929, 932, 933
 synthesis, 933
 transport of, 933
Nuclear magnetic resonance of AMP, 961
 of carbohydrates
 and classification, 968
 and conformation, 961, 963, 965-70
 glucose, 968
 and metal complexes, 968
 in pseudouridine, 972
- of cytochrome c, 829
 and DNA histone interactions, 253
 and helix, 881
 of hemoglobins, 823, 825
 and hydrogen exchange measurement, 904, 909
 of lipoproteins, 707, 708, 715
 of lysozyme, 970
 of pseudouridine, 972
 of random coil polypeptides, 874, 877
Nucleocidin, 978
Nucleoside diphosphokinase
 isoenzymes of, 32
 mechanism of, 40-42
 metal ion requirement, 30, 33
 specificity of, 48
 thiol groups of, 31, 46
Nucleoside monophosphokinase, 43
Nystatin, 766
- O**
- Obstructive jaundice**, 721, 726
Ochronotic arthritis, 559
Oligomycin, 362
Oligosaccharides
 sequence analysis of, 972
 synthesis of, 986
Oncogenic viruses
 and cancer, 514
RNA-containing
 and cell DNA, 511, 512
 and chick helper factor, 511
 and helper virus, 510
 host range of, 511
 structure of, 510
 viral gene function in, 512, 513
 and transformation
 assay of, 504
 biochemical changes in, 504-6
 and cell phenotype, 509
 definition of, 503
 and lytic infection, 503, 504
 and viral genes, 503, 504, 507-9
Operon, 410
 see also specific operons
Optical rotatory dispersion of DNA
 and histones, 252
 and polyllysine complexes, 250
 and α -helix, 879
 of high density lipoproteins, 707, 710
 of LIV binding protein, 787

- of low density lipoproteins, 715
- of polyamino acids, 878-81
- of random coil polypeptides, 874, 877
- of RNA polymerase, 278
- and β -structure, 879
- Ornithine aminomutase, 70, 71
- Ornithine-ketoacid transaminase
 - in amniotic cells, 560
 - and ornithinemia, 547
- Ornithinemia, 547
- Ornithine transcarbamylase, 546, 550
- Ornithine transport, 791
- Orosomucoid
 - carbohydrate of, 681, 684, 688
 - glycosylation of, 675
- Orotate phosphoribosyltransferase, 547, 550, 551
- Orotic aciduria
 - deficiency in, 547, 550, 551
 - treatment of, 564
- Orotidylic decarboxylase, 547, 550, 551
- Ouabain, 81, 780
- Ovomucins
 - composition of, 693
 - purification of, 694
- Ovotransferrin, 679
- Oxaloacetate decarboxylase, 105
- Oxalosis, 564
- Oxidative phosphorylation
 - cadmium effect, 107
 - mercury effect, 99
 - and vitamin K, 194
- P**
- Papain
 - myosin, action on, 580, 581
 - X-ray analysis of, 816
- Paramyosin, 590
- Paramyxovirus, 738, 747
- Parathyroid hormone, 783
- Partially relaxed Fourier transform spectra, 969
- Penicillin, 324
- Pentosuria, 547
- Pepsin, 851
- Peptidases
 - cadmium effect, 105, 106
 - lead effect, 110
- Peptidyltransferase
 - action of, 381, 382
 - localization of, 402
- Peroxidase
 - dye binding of, 850
 - and neurotransmitter release, deficiency of, 545
 - isoenzymes of, 32
 - mechanism of, 42
 - subunits of, 30, 31
 - thiol groups of, 31, 45, 46
- 6-Phosphogluconate dehydrogenase, 851
- Phosphoglycerate kinase
 - deficiency of, 546
 - mechanism of, 42
 - metal ion requirement, 33
 - phosphorylated complex of, 43
 - specificity of, 36, 48
 - subunits of, 30-32
 - thiol groups of, 31, 46
 - X-ray analysis of, 32, 817
- Phosphoglyceromutase, 98
- Phosphokinase, 735
- Phospholipase A
 - lipoproteins, action on, 713, 717
 - in membranes, 735
 - metabolic role of, 153, 154
 - in phospholipid biosynthesis, 135, 136, 141
 - properties of, 147-52
 - specificity of, 147, 148
- Phospholipase B, 148, 152, 153
- Phospholipase C
 - lipoproteins, action on, 718
 - and sarcoplasmic reticulum, 605
- Phospholipase D, 713, 718
- Phospholipids
 - biosynthesis of
 - acylation, 135-39
 - alkyl ether, 129-32
 - ATP role, 130-32, 134
 - CoA requirement, 130-32, 134, 137
 - deacylation in, 136, 141
 - de novo, 139-41
 - dihydroxyacetone phosphate in, 130
 - ether-containing, 129-35
 - fatty acids in, 135-39, 141
 - fatty alcohols in, 130-32
 - glyceraldehyde phosphate in, 130
 - localization of, 143-45
 - metabolic heterogeneity, 135-42
 - NADPH in, 130-32
 - N-containing, 131
 - phospholipases in, 135, 136, 141
 - plasmalogens, 132-35
- 933
- Phenylalanine hydroxylase
 - in phenylketonuria, 547, 550, 562
- Phenylalanine transport, 784, 786, 789, 790
- Phenylene-bis-maleimide, 395, 396
- Phenylketonuria
 - and glycolysis, 563
 - mental damage in, 562, 563
 - and myelination, 562, 563
 - phenylalanine hydroxylase
 - in, 547, 550, 562
 - symptoms of, 547
- Phosphate transport, 782, 783
- Phosphatidate phosphohydrolase, 139
- Phosphatidate acylhydrolases
- lysophospholipase
 - distribution of, 153, 154
 - inhibition of, 153
 - specificity of, 148, 153
 - metabolic role of, 153, 154
 - nomenclature of, 147, 148
 - phospholipase A₁
 - properties of, 152
 - specificity of, 148, 152
 - phospholipase A₂
 - calcium requirement, 149, 151
 - detergent effect, 150
 - and direct lytic factor, 151
 - isoenzymes of, 148
 - metabolic role of, 153, 154
 - properties of, 148, 149
 - substrates of, 150, 151
 - phospholipase B, 148, 152, 153
 - and reacylation, 154
- Phosphatidylcholine
 - biosynthesis of
 - and turnover, 139
 - and unsaturation, 139, 140
 - in high density lipoproteins, 705
 - lead binding of, 113
 - and lipoprotein reassembly, 711
 - in membranes, 760
 - phospholipase action on, 150
- Phosphocreatine, 16
- Phosphofructokinase
 - active site of, 43, 46
 - allosterism of, 48, 49
 - ATPase of, 43

- polyglycerophosphatides,
 144
 selectivity in, 135-37
 transmethylation in, 141,
 142
 triosephosphates in, 138
 ether-containing
 alkyl ether, 129-32
 ATP role, 130-32
 biosynthesis, 129-35
 CoA requirement, 130-
 32
 dihydroxyacetone phosphate
 in, 130
 fatty alcohols in, 130-32
 glyceraldehyde phosphate in,
 130
 NADPH in, 130-32
 N-containing, 131
 plasmalogens, 132-35
 exchange of
 and erythrocytes, 145,
 146
 intermembrane, 145-47
 and lipoproteins, 146
 stimulatory factor, 146
 fatty alcohols of
 biosynthesis of, 131, 132
 in ether synthesis, 130
 in membranes
 biosynthesis of, 143-
 45
 composition of, 142, 143
 distribution of, 744
 exchange of, 145-47
 in mitochondria, 142-45
 plasmalogens
 biosynthesis of, 132-35
 cell-free synthesis of,
 134
 and prostaglandin biosynthe-
 sis, 163
 Phosphopyruvate carboxylase,
 105
 Phosphopyruvate hydratase,
 105
 Phosphoramidate-ADP phos-
 photransferase
 forms of, 42
 metal requirement, 30
 Phosphoribonuclease, 106
 Phosphorylase
 cadmium effect, 105
 in glycogen storage disease,
 545
 Phosphorylase B
 conformation of, 852
 inhibition of, 988
 Phosphorylase kinase
 in glycogen storage disease,
 545, 548
 properties of, 31
 Phosphotransferase enzyme II,
 735
 Phosphotransferases
 active sites of
 amino acids in, 44-47
 cation function in, 47
 and conformational
 changes, 48
 specificity of, 47, 48
 thiol groups in, 31, 44-
 46
 allosteric, 48, 49
 isoenzymes of, 32
 kinetic studies of
 and metal concentration,
 36-38
 reaction pathway, 36
 and stability constants,
 36-38
 metal ion requirement of
 classes of, 33
 exceptions to, 30
 in vivo, 33
 nature of, 32, 33
 and reactant form,
 30
 metal-nucleotide complexes
 in
 binding sites, 34, 35
 formation of, 35
 stability of, 34
 molecular weights of, 30,
 31
 reaction mechanisms of
 ordered, 40, 42
 phosphorylated complexes
 in, 43
 ping-pong, 39-42,
 44
 random, 39-41, 43
 sequential, 40, 41, 43
 reactions catalyzed, 30
 subunits of, 30-32
 Phosvitin, 684
 Physarum polycephalum
 mitochondrial DNA of,
 334, 335, 337
 Physostigmine, 19
 Phytic acid, 960
 Pilocarpine, 691
 Pilorubrosin, 976
 Plasmalogens
 biosynthesis of, 132-
 35
 stereospecificity in, 133,
 134
 Plasma membranes
 composition of, 732
 of mycoplasma, 755
 proteins of
 and function, 732, 733
 heterogeneity of, 740
 properties of, 734,
 735
 structural, 739
 Plasmin, 106
 Plastocyanin, 736
 Poliovirus
 assembly of
 protease in, 478, 479
 RNA in, 479
 empty shells of, 478
 proteins of, 478, 479
 structure of, 474, 478
 Polyamino acids
 conformational transitions in
 helix-coil, 882-90
 polyproline I-II, 884, 890,
 891
 in random copolymers,
 892
 conformation of
 calculation of, 873
 and circular dichroism,
 879-81
 and conformation energy,
 870-73, 878
 and dipole moments,
 881
 and end-to-end distance,
 875, 877
 and free energy, 870,
 873
 α -helical, 873, 874, 879
 hydrophobic interactions in,
 889, 890
 and intramolecular potential
 energy, 870, 871
 and molecular orbital theory,
 872, 873
 and NMR properties, 881,
 882
 and ORD, 878-81
 and proline, 874, 879
 random coil, 874, 875,
 879, 880
 rigidity of, 875
 rotational states in, 870-
 72
 solvent role, 878, 887-
 89
 and steric maps, 870, 872
 β -structure, 874, 879
 transitions in, 862-87,
 890
 triple helical, 892
 helix-coil transition in
 cooperativity in, 883
 hydrophobic interactions in,
 889, 890
 models of, 882, 883
 nucleation in, 883, 884
 polyelectrolyte, 884
 solvent role, 887-89
 stages of, 885
 transition parameters, 885-
 87, 890
 proline helix transitions in,
 884, 890, 891
 as protein models, 869,
 882
 Polyglycerophosphatides
 biosynthesis of, 144
 in high density lipoproteins,
 705
 Polylysine
 DNA interaction of, 248-
 53
 Polymyxin, 857

- Polynucleotide ligases
activity of, 308
in bacteriophage replication,
308, 309
inhibition of, 310
- Polynucleotide phosphorylase,
413
- Polyoma virus
DNA of, 475, 504, 507
mutants of
and cell surface properties,
505, 506
classes of, 504, 505
host range, 505
temperature sensitive,
504
and transformation, 504,
505
proteins of, 475, 507
structure of, 473, 474
transformation by
assay of, 504
biochemical changes in,
504-6
and cell surface properties,
505, 506
and lytic infection, 503,
504
mutants of, 504, 505
nature of, 503, 504
- Polyoxins, 975, 976
- Polyproline
helices of
forms of, 874
optical properties of, 879,
890
stabilization of, 880
transitions between, 890,
891
- Poly rI: rC, 520-23, 537,
538
- Polysaccharides
conformation of, 961, 963
- Polytyrosine
CD of, 880
conformation of, 880, 881
- Pompe's disease, 561
- Porphyria, 188, 547
- Porphyrin synthesis
and globin synthesis, 112,
113
lead effect, 111, 112
pathways, 111
and vitamin E, 187, 188
- Potassium
and aspartokinase, 34
and pyruvate kinase,
34
transport of, 780, 781
- Pox viruses, 474, 493
- Procollagen peptidase, 662
- Proflavin
DNA binding of, 244, 245,
856
- Progesterone
chromatin binding of, 219
and liposomes, 770
and RNA polymerase acti-
vity, 215
see also Progestins
- Progestins
actinomycin effect, 215
binding of
estrogen effect, 215-
17
localization of, 216-18
and metabolic transfor-
mation, 216
and receptors, 215-18
specificity of, 216, 218
early effects of
avidin synthesis, 214,
215
and DNA synthesis,
215
and RNA synthesis, 215
metabolism of, 216
nuclear binding of
and cytosol binding, 220,
221
cytosol dependence of,
218, 219
and estrogens, 215-17
and temperature, 217
and protein synthesis, 214,
215
receptor complexes of
estrogen effect on,
217
localization of, 216-18
sedimentation of, 217,
218
receptor proteins for
binding by, 219
movement of, 221
purification of, 219
- Prolidase, 105, 106
- Proline hydroxylase
and collagen synthesis,
633
of earthworm, 636
mechanism of, 638
precursor of, 637
recognition by, 635, 636
requirements of, 637
sequence dependence,
682
and substrate denaturation,
636
- Proline transport, 784, 786
- Propionyl-CoA carboxylase,
57
- Prostaglandin dehydrogenase
localization of, 169
in prostaglandin assay,
163
and prostaglandin catabo-
lism, 165, 166
prostaglandin isomerase,
167
prostaglandin reductase,
165, 166
- Prostaglandins
action of
and adenyl cyclase, 168-
71
and calcium, 170
in central nervous system,
169
and cyclic AMP, 170,
171
and inflammatory response,
168, 169
and norepinephrine recep-
tors, 169
in transport, 169, 170
in vasodilatation, 167,
168
and wound healing, 168,
169
antibodies to, 163
assay of, 162, 163
biosynthesis of
and aspirin, 168
control of, 165
distribution of, 163
and indomethacin, 168
inhibitors of, 165, 168
mechanism of, 163-66
and phospholipids, 163
precursors of, 163,
164
and release, 163
catabolism of
dehydrogenase role, 165-
67
and excretion, 167
pathway of, 166, 167
extraction of, 162
identification of, 162
isolation of, 162, 163
release of, 169
solubility of, 162
- Protamines, 233
- C Protein, 590
- CI Protein, 423, 424
- M Protein, 591
- ω Protein
action of, 291, 292, 308
mechanism of, 291, 292
- Proteinase, 106
- Protein kinase
allosterism of, 48,
49
and cyclic AMP, 33, 49
metal ion requirement of,
33
properties of, 31
specificity of, 48
- Protein synthesis
adapter model of, 378,
379
and DNA synthesis, 322,
323
elongation in
G factor in, 381
and GTP hydrolysis, 380,
381, 393, 403, 404
peptidyltransferase in,
381
puromycin effect, 380

- and translocation, 403, 404
- T_s role, 380, 381
- T_u role, 380, 381
- estrogen effect on, 204, 206
- initiation of
 - dissociation factor in, 382, 383
 - F factors in, 382-84, 399, 400
 - Fmet-tRNA in, 383, 384, 402
 - GTP role, 403
 - ribosome dissociation in, 382-84
 - 30S subunit in, 383
- and interferon, 521, 534
- lead effect, 111
- mercury effect, 99
- mitochondrial
 - and bacteria, 350, 351
 - and intercalating dyes, 356
 - and membranes, 358, 359
 - and mitochondrial ribosomes, 347, 348, 350, 351, 361
 - and mitochondrial synthesis, 358-62
 - products of, 356, 358-64
 - and protein import, 356
- peptidyltransferase in
 - in elongation, 381
 - localization of, 402
 - in termination, 382
- progesterin effect on, 214, 215
- proteins in
 - function of, 388, 389, 399, 400
 - G factor, 381
 - number of, 378
 - termination, 382
 - T factors, 380-82
- ribosomes in
 - cycle of, 384, 385, 399
 - in elongation, 380, 381
 - initiation, 382-84
 - mRNA binding, 379, 380, 393
 - peptide bond formation, 379
 - subunits of, 383, 402, 403
 - termination, 381, 382
 - tRNA binding, 379-81, 393, 400-2
 - two-site model, 379, 380, 384
- termination of
 - codons for, 381, 382
 - peptidyltransferase in, 382
- R factors in, 382
- T_u in, 382
- and vitamin E, 188
- vitamin K effect on, 195
- Prothrombin
 - abnormal, 197
 - release of, 198
 - synthesis of, 196, 197
- Pseudouridine, 972
- Puromycin
 - and clotting factor synthesis, 196
 - and estrogen action, 205, 208
 - and mitochondrial DNA, 343
- Pyrenebutyrate, 849
- Pyridoxal kinase
 - metal ion requirement, 33
 - properties of, 31
- Pyridoxal phosphate, 71
- Pyridoxine responsiveness, 557-59
- Pyruvate carboxylase, 545, 547, 558
- Pyruvate decarboxylase
 - in ataxia, 545
 - cadmium effect, 105
- Pyruvate dehydrogenase, 105
- Pyruvate kinase
 - active site of, 46
 - allosterism of, 48, 49
 - calcium effect, 33
 - deficiency of, 546, 551
 - isoenzymes of, 32
 - mechanism of, 42, 47, 48
 - metal ion requirement, 33, 34, 38
 - specificity of, 48
 - thiol groups of, 31, 46
- R
- Red blood cells
 - actomyosin in, 734, 740, 741, 744, 745
 - membranes of
 - asymmetry of, 744
 - ATPase in, 745
 - composition of, 732, 741, 742
 - lipid bilayer in, 744
 - proteins of, 734, 740-45, 747
 - sialoglycoproteins of, 742, 743
 - surface proteins of, 741-43
 - metabolism of, 544, 547
 - see also Erythrocytes
- Refsum's disease, 547
- Reovirus
 - structure of, 474
 - transcriptase of, 291
- Reticulocytes
 - fragility of, 113
 - porphyrin synthesis in
 - lead effect, 112
 - pathways of, 111
- Retinal rods
 - lipids of, 754
 - rhodopsin interactions with, 765
- Retinene, 765
- Retinol, 849
- Rhodopsin
 - as membrane protein, 735, 740
 - in retinal rods, 765
- Ribonuclease
 - and cadmium poisoning, 108
 - carbohydrate of, 684, 686
 - DNA binding by
 - and DNA melting, 259, 260
 - quantitative aspects, 261
 - and RNase denaturation, 260
 - specificity of, 260
 - glycosylation of, 675, 684
 - hydrogen exchange of, 911, 913-15, 921
 - and interferon induction, 522
 - iodination of, 918
 - properties of, 259
 - and vitamin E deficiency, 188
- Ribonuclease S, 817
- Ribonucleotide reductase
 - coenzyme B_{12} -dependent
 - coenzyme function, 72, 85
 - deoxyadenosylcobalamin in, 56, 72-75
 - distribution of, 74, 75
 - electron spin resonance of, 72-74
 - reaction of, 72
 - substrates for, 74, 75
 - and thioredoxin, 72
 - corrinoid-independent, 75
- Ribosomes
 - functional modes of
 - cycle of, 384, 385, 399, 400
 - in elongation, 380, 381
 - in initiation, 382-84, 399, 400, 402, 403
 - and structure, 399, 400, 402, 403
 - and subunits, 402, 403
 - in termination, 381, 382
 - mitochondrial
 - and antibiotic resistance, 362, 363
 - proteins of, 349
 - and protein synthesis, 348, 350, 351, 361

- rRNA of, 345, 348-50, 353, 357, 358, 365
 sedimentation of, 348, 349
 5S RNA in, 350
 mutants of
 antibiotics in, 390-92
 and ribosome structure, 397
 and tRNA binding, 401
 proteins of
 acylated, 398
 antibodies to, 393, 395
 fractional, 399
 function of, 388-93
 modification of, 392, 393
 mutant, 397
 neighboring, 395, 396
 nomenclature of, 386, 387
 photooxidation of, 856
 and poly U binding, 389
 and reconstitution, 388, 389
 and ribosome complexity, 379, 385
 RNA interactions of, 391, 396, 397
 30S subunit, 386, 387, 391, 394
 50S subunit, 386, 387
 stoichiometry of, 391, 397-99
 supernatant factors as, 385, 400
 and supernatant proteins, 385
 and tRNA binding, 401, 402
 as unique species, 386
 unit, 399
 in protein synthesis
 cycle of, 384, 385, 399
 elongation, 380, 381
 initiation, 382-84
 mRNA binding, 379, 380, 393
 peptide bond formation, 379
 subunits of, 402, 403
 termination, 381, 382
 tRNA binding, 379-81, 393, 400-2
 two-site model, 379, 380, 384
 reconstitution of
 and assembly, 389
 cooperativity of, 389
 and function, 389, 390
 with inactivated components, 392, 393
 incomplete, 388, 389
 and tRNA binding, 390
 RNA of
 methylation of, 391, 392
 protein interactions of, 391, 396, 397
 5S, 387, 390
 16S, 387, 388, 391
 23S, 387, 388
 structure of
 and antiviral protein, 534, 535
 cycle of, 399
 and electronmicroscopy, 394
 heterogeneity of, 397-99
 in mutants, 397
 neighboring proteins in, 395, 396
 and nuclease treatment, 397
 peptidyltransferase in, 402
 protein in, 394-97
 RNA in, 394-97
 stoichiometry of, 391, 397-400
 subunits of, 393, 394
 surface, 395
 and tRNA binding, 400-3
 subunits of
 dissociation of, 382, 402
 exchange of, 402
 interactions of, 402, 403
 proteins of, 386
 in protein synthesis, 379, 383
 30S, 386, 387, 391, 393, 394, 396-98
 50S, 386, 387, 394, 397, 398
 structure of, 393, 394, 397, 398
 X-ray scattering of, 393, 394
 Ribulokinase, 31
 Rifampicin
 and DNA synthesis, 311, 324
 and RNA polymerase, 277, 283, 284, 288, 290, 411, 412, 419, 424, 426, 433
 RNA
 chromosomal, 325
 and DNA replication, 311
 double-stranded
 conformation of, 524, 525
 as interferon inducer, 519, 520-22, 525
 in normal cells, 520, 521
 mercury interactions of, 99
 in poliovirus, 479
 synthesis of, see RNA polymerase, RNA synthesis, Transcription
 of TMV, 468, 471
 of transforming viruses, 513
 of yeast, 290, 291
 RNA polymerase
 adenylation of, 415, 416
 of *Bacillus stearothermophilus*, 284
 and bacteriophage DNA
 ϕ 416, 417
 λ , 422, 423
 ϕ X174, 417, 418
 T4, 425-30
 T7, 290, 418-20
 of bacteriophage P4, 421
 of bacteriophage T3, 290, 420
 of bacteriophage T7, 290, 419, 420
 CD of, 278
 ω chain of, 412
 core of
 composition of, 277, 278
 RNA synthesis by, 281
 elongation by
 antibiotic effect, 288
 and ionic strength, 288
 kinetics of, 288
 models of, 279, 280
 and estrogen treatment, 204-6, 222
 functions of
 requirements for, 277
 and specificity, 277, 411
 initiation by
 core enzyme in, 281, 286
 and DNA melting, 280, 281
 DNA role, 286
 initiation complex in, 279-81, 287, 288
 in lac operon, 271
 melting in, 280-86
 promoter role, 410, 412, 413
 purines in, 287, 288
 regulation of, 410
 and λ repressor, 275
 sigma factor role, 285-87, 412, 413
 sites of, 410, 416, 417
 specificity of, 232, 278, 279, 282, 286, 287, 412
 and interferon, 535, 536
 kinase effect on, 413
 as melting protein
 evidence for, 281, 284-86, 290, 291
 and inhibitors, 283, 284
 model of, 279-81
 sequence specificity of, 281-83

- mitochondrial, 290, 354, 355
 and mitochondrial DNA templates, 341, 354
 modification of, 429, 430
 of *Neurospora*, 290
 ORD of, 278
 phosphate addition to, 416
 physical properties, 277, 278
 polynucleotide phosphorylase in, 413
 products of, 411
 progesterone effect, 215
 rho factor of
 function of, 412, 417, 418, 422, 424, 427
 and initiation, 414, 417
 and termination, 412-14, 419, 427
 and ribosomal RNA, 433, 436
 rifampicin action, 277, 283, 284, 288, 290, 411, 412, 419
 sigma factor of
 function of, 412, 413, 417, 418, 427, 428, 436
 in melting, 287
 models of, 413
 release of, 288, 412
 and rifampicin, 412
 and RNA synthesis, 287
 role of 285-87
 specificity of, 286, 287
 specificity of, 278, 279, 435-37
 and sporulation
 enzyme alterations, 435-38
 proteolysis in, 435
 specificity, 435-37
 stability of, 278
 stimulation of
 by DNase, 414
 by M factor, 414, 415
 by ψ factor, 415
 in relaxed strains, 415
 streptolidigin action, 288, 411
 streptovaricin action, 411
 β -subunit of
 antibiotic action, 411
 function of, 412
 subunits of
 α , 411, 412
 β , 411, 412
 β' , 411, 412
 composition of, 277
 core enzyme, 412
 function of, 277, 278
 nature of, 411, 412
 omega, 411, 412
 rho, 412-14
 rifampicin binding of, 277
 sigma, 411-13, 417, 418, 427, 428
 templates for
 denatured DNA as, 281
 single-stranded DNA as, 280, 281
 termination by
 actinomycin D effect, 288
 factor for, 289, 290
 ionic strength effect, 289
 and rho factor, 412-14, 419, 427
 sites of, 410
 specificity of, 289
 of vesicular stomatitis virus, 535, 536
 see also RNA synthesis, Transcription
 RNA synthesis
 actinomycin effect, 205
 and DNA replication, 323, 324
 estrogen effect, 204-6, 221, 222
 in mitochondria, 351-55, 365, 366
 progesterone effect, 215
 see also RNA polymerase, Transcription
 RNA transport, 205
 Rous sarcoma virus
 and associated virus, 510
 and chick helper factor, 511
 host range of, 511
 in mitochondria, 367
 mutants of, 512, 513
 proteins of, 738
 structure of, 474
 rRNA
 ethidium bromide binding of, 855
 mitochondrial
 gene mapping, 345
 genes for, 358, 359
 methylation of, 350
 molecular weight, 348, 349
 in petite mutants, 365
 5S, 350
 sedimentation of, 348, 349
 turnover of, 353
 protein binding of, 394, 396, 397
 5S
 mitochondrial, 350
 protein binding of, 396
 sequence of, 387
 16S
 protein binding of, 395, 396
 sequence of, 388
 23S
 homogeneity of, 388
 protein binding of, 396
 synthesis of
 and amino acid starvation, 434
 and guanosine tetraphosphate, 434
 precursors of, 433, 434
 and psi factor, 434, 435
 RNA polymerase role, 433, 436, 437
 tRNA binding sites on, 400
 Rubredoxin
 role of, 833, 834
 X-ray crystallography of, 816, 833, 834
 Rubroprolin, 976
 Rutamycin, 362
 S
 Saccharopine, 567
Salmonella typhimurium
 origin of replication in, 317
 sulfate transport in
 genetics of, 782
 proteins in, 779, 781, 782
 Sanfilippo syndrome
 genetic heterogeneity in, 550
 heparan sulfate in, 552
 Saponin, 767
 Sarcoplasmic reticulum
 ATPase of, 734, 745, 746
 and ATP hydrolysis, 604-6
 calcium release from, 604
 and calcium transport, 605, 606
 composition of, 732, 734, 735
 lysocleithin effect, 605
 phosphorylated intermediate in, 605, 606
 Selenium, 184
 Serine
 glycosylation of, 673, 674, 676, 682-84, 692
 transport of, 784-86
 Serum albumin
 catabolism of, 689
 dye binding of, 844, 848, 849
 membrane interactions of, 763
 and pyrenebutyrate, 849
 Shope papilloma virus, 566

- Showdomycin, 972
 Sialic acid, 979, 980
 Silk, 640, 683
 Silver, 241
 Simliki forest virus
 and interferon induction, 519
 structure of, 474
 Sindbis virus
 glycosylation of, 494
 lipids in, 494
 proteins of, 738
 X-ray diffraction of, 492, 494
 Sisomycin, 974
 Sodium transport, 780, 804
 Sorbital dehydrogenase, 109
 Spectinomycin, 390, 391
 Spectrin
 and actomyosin, 741
 membrane interactions of, 763
 properties, 734
 Spermine, 247, 248
 Sphingolipidoses
 classification of, 554
 β -galactosidase in, 555
 hexosaminidase in, 555
 hydrolases in, 552, 554
 Sphingomyelin
 breakdown of, 554
 in high density lipoproteins, 705
 in membranes, 142, 143, 760
 in Niemann-Pick disease, 547, 552, 554, 555
 Sphingomyelinase, 547
 Sphingosine, 132
 Sporulation
 as differentiation, 435
 RNA polymerase in, 435-38
 S100 protein, 765
 Staphylococcal nuclease, 817
 Staphylococcal α -toxin, 764
 Statolon
 as antiviral agent, 536
 as interferon inducer, 519, 528, 532, 536, 538
 uptake of, 532
 Steroid dehydrogenase, 109
 Streptoliddigin
 and RNA polymerase, 288, 355, 411
 Streptomycin, 390, 391
 Streptovaricin, 411
 β -Structure
 in low density lipoproteins, 714, 715, 726
 and optical rotation, 879
 in polyamino acids, 874, 879, 879
 Subacute necrotizing encephalomyelopathy, 547, 558
 Submaxillary glycoproteins
 carbohydrates of, 681, 688
 glycosylation of, 682
 structure of, 676, 682, 691
 Subtilisin, 816
 Succinic dehydrogenase
 cadmium effect, 105, 106
 lead effect, 110
 in membranes, 736
 and vitamin E, 188, 189
 Succinylation
 of high density lipoprotein, 712
 of low density lipoprotein, 714, 716, 717
 Sucrase, 985
 Sucrose phosphorylase
 glucose-enzyme complex in, 987
 glycosyl donors for, 977, 986
 Sulfate
 in glycoproteins, 694
 transport of, 779, 781, 782, 802
 Sulfatides, 554
 SV40 virus
 DNA of, 504, 506, 507
 DNA replication in, 319
 genetic structure of, 507
 hybrids of, 506, 507
 mutants of, 504, 505
 proteins of, 507
 structure of, 474, 475
 transformation by
 assay of, 504
 and lytic infection, 503, 504
 mutants of, 504, 505
 viral genes in, 507-9
 Synapses
 compartmentalization in, 933, 934
 in electric organ, 936, 937
 morphology of, 927
 nature of, 925, 926
 T
 Tangier's disease, 721
 Taurocyamine kinase
 mechanism of, 40
 thiol groups of, 31, 45
 Tay-Sach's disease
 in Ashkenazi Jews, 560
 diagnosis of, 561
 ganglioside in, 554, 696
 hexosaminidase in, 555, 561
 pathogenesis of, 771
 Tetraethyllead
 tissue distribution, 115
 toxicity of, 113
 Tetrahydrofolic acid, 75-80
 Tetranitromethane, 395
 Thalassemia
 defect in, 550
 and lysosomes, 553
 Thiamine
 deficiency of
 and genetic disease, 557
 and metals, 96
 in Leigh's syndrome, 558
 Thioredoxin, 72
 Thrombin, 689, 690
 Thyroglobulin
 carbohydrate of, 684, 688
 glycosylation of, 691
 Thyroxine, 770
 Tilorone, 525
 Tobacco mosaic virus
 assembly of
 direction of, 471
 from discs, 469-72
 from subunits, 469
 cadmium effect, 107
 electronmicroscopy of, 469, 470
 in mitochondria, 367
 protein of
 in assembly, 469-71
 carboxyl groups in, 471
 discs of, 469-72
 reconstitution of
 definition of, 469
 direction of, 471
 from discs, 469-72
 RNA of
 size of, 468
 terminal sequence of, 471
 structure of, 468-70
 X-ray diffraction of, 469, 470
 Tobacco rattle virus, 367
 α -Tocopherol
 and anemia, 187
 biological activity of, 184, 185
 derivatives of, 185
 in low density lipoproteins, 713
 and membranes, 185
 TPNH oxidase, 189
 Transaldolase, 852
 Transcription
 of arabinose operon, 438, 439
 of bacteriophage DNA
 early, 418, 419
 initiation, 416, 417, 419
 in vivo, 417
 λ , 421-25
 late, 419, 420

- SPO1, 430, 431
 T4, 425-30
 T7, 418-20
 termination, 417
 coordinate, 411
 electronmicroscopy of, 438
 initiation of
 in bacteriophage fd, 416, 417
 and CAP, 432, 433
 sigma factor in, 412, 413, 417
 specificity of, 410, 412
 of lac operon
 and CAP, 431-33
 control of, 411, 431, 432
 in vitro, 432
 organization of, 438
 promoter role
 nature of, 410, 412
 and RNA polymerase, 410, 412, 413
 of rRNA
 and amino acid starvation, 434
 and guanosine tetraphosphate, 434
 precursors, 433, 434
 and psi factor, 434, 435
 RNA polymerase role, 433, 437
 in sporulation
 in vitro, 436, 437
 RNA polymerase role, 435-38
 sigma factor role, 436
 stimulation of, 414, 415
 termination of
 in bacteriophage fd, 417
 in bacteriophage ϕ X174, 418
 rho factor in, 414, 417, 418
 types of, 413, 414
 unit of
 definition of, 411
 operon as, 410
 promoter in, 410
 see also mRNA, RNA polymerase, RNA synthesis
- Transferrin
 carbohydrate of, 684, 689, 695
 glycopeptides of, 679
 secretion of, 690
- Transformation
 definition of, 503
 by hybrid viruses, 507
 by oncogenic viruses, 503-9
 by polyoma virus, 503-6
 by RNA viruses
- and cell DNA, 511, 512
 and cell surfaces, 513
 helper virus in, 510
 and RNA subunits, 513
 viral gene function in, 512, 513
 by SV40, 503-5, 507, 508
 and viral genes
 expression of, 503, 504
 function in, 503
 by hybrid viruses, 506, 507
 number of, 508, 509
 products of, 503-7
 regulation of, 509
 stability of, 507-9
- Transplantation antigen, 504
- Transport
 of alanine, 784-86
 of amino acids
 alanine, 784-86
 arginine, 791, 792
 binding proteins in, 787-93
 cysteine, 784
 cystine, 793
 glutamic acid, 792, 793
 glutamine, 792
 glycine, 784-86
 histidine, 788, 789, 802, 803
 isoleucine, 786, 787
 leucine, 779, 786-88
 lysine, 791, 792
 ornithine, 791
 phenylalanine, 784, 786, 789, 790
 proline, 784, 786
 regulation of, 793, 794
 serine, 784-86
 tryptophan, 779, 780, 784-86, 789-91, 793, 794
 tyrosine, 789, 790
 valine, 786-88
 of arabinose, 797
 of arginine, 791, 792
 assembly of systems of
 lateral migration in, 807, 808
 lipid role, 806, 807
 protein role, 806, 807
 binding proteins in
 and amino acids, 787-93
 evidence for, 800, 801
 genetic studies, 802, 803
 localization of, 801
 release of, 800, 801
 role of, 803
- and sugars, 796, 797
 and translocation, 803, 804
 of calcium
 ATPase role, 783, 784
 in mitochondria, 784
 and vitamin D, 783
 of cysteine, 784
 of cystine, 793
 energy coupling in
 and ion gradients, 805
 and maturation, 804
 nature of, 805, 806
 sodium requirement, 804
 and transport carriers, 805, 806
 of galactose
 and binding proteins, 802
 specific, 796, 797
 strain differences in, 779
 systems of, 779, 795-97
 of glucose, 794-96, 798
 of glutamic acid, 792, 793
 of glutamine, 792
 of glycine, 784-86
 of histidine, 788, 789, 802, 803
 induction of, 778
 of ions
 ATPase in, 780
 calcium, 783, 784
 phosphate, 782, 783
 potassium, 780, 781
 sodium, 780, 804
 sulfate, 779, 781, 782, 802
 of isoleucine, 786, 787
 lactic dehydrogenase in, 805
 of lactose, 795, 797, 798
 of leucine
 binding protein for, 787, 788
 glucose effect, 779
 localization of, 778
 of lysine, 791, 792
 of melibiose, 795, 796
 of norepinephrine, 933
 of ornithine, 791
 of peptides, 778
 of phenylalanine, 784, 786, 789, 790
 of phosphate
 and osmotic shock, 782, 783
 regulation of, 782
 systems for, 783
 and phospholipids, 806, 807
 phosphotransferase system
 in
 proteins of, 798
 reconstitution of, 798

- role of, 799, 800
 - specificity of, 799
- of potassium, 780, 781
- of proline, 784, 786
- and protein localization, 748
- of RNA, 205
- of serine, 784-86
- of sodium, 780, 804
- steps in, 779
- strain differences in, 779, 780
- of sugars
 - arabinose, 797
 - binding proteins in, 796, 797, 802
 - fructose, 798
 - galactose, 779, 795-97, 802
 - glucose, 794-96, 798
 - lactose, 795, 797, 798
 - mannose, 798
 - melibiose, 795, 796
 - β -methylgalactoside, 796
 - and phosphotransferase system, 796-800
- of sulfate, 779, 781, 782, 803
- terminology of, 779
- translocation in
 - and binding proteins, 803, 804
 - nature of, 803
- of tryptophan
 - general system, 789, 790
 - strain dependence, 779, 780, 784, 785
 - systems of, 786, 790, 791, 793, 794
- of tyrosine, 789, 790
- of valine, 786-88
- vitamin E effect, 186
- of vitamin K, 197, 198
- Triosephosphate isomerase
 - deficiency of, 546
- X-ray analysis of, 817
- Tripeptidase, 106
- tRNA
 - aminoacylation of, 110, 111
 - conformation of, 855, 856
 - fluorescence of, 856
 - in mitochondria
 - gene mapping, 345
 - genes for, 357, 358
 - heterogeneity of, 339
 - methylated bases in, 351
 - species of, 351
 - turnover of, 353
 - ribosomal binding of
 - in initiation, 383, 384, 402
 - and ribosome structure, 391, 400-3
 - sites of, 379, 380
 - tRNA methylase, 205
 - Tropocollagen
 - assembly of, 630
 - glycosylation of, 676
 - Tropoelastin
 - components of, 641
 - composition of, 641
 - crosslinking of, 641, 651
 - and elastin formation, 641, 651
 - occurrence of, 640
 - sequences in, 651
 - Tropomyosin
 - and α -actinin in, 589
 - properties of, 585
 - in thin filament structure, 592, 593
 - and troponin, 586-89
 - Troponin
 - and ATPase, 586, 587, 602
 - and calcium, 586-89, 604
 - as complex, 587, 588
 - components of
 - assay of, 586, 588
 - and calcium, 586-89
 - fractionation of, 586, 587
 - nomenclature of, 586, 587
 - configuration of, 589
 - and superprecipitation, 586, 587
 - and thin filaments, 592, 593
 - and tropomyosin, 586-89
 - Trypanosomes, 367
 - Trypsin
 - conformation of, 853
 - and trypsin inhibitor, 835
 - X-ray analysis of, 816
 - Trypsin inhibitor
 - function of, 835
 - trypsin binding site, 835
 - X-ray analysis of, 816, 835, 836
 - Trypsinogen, 853
 - Tryptophan
 - mercury, interaction with, 97
 - transport of, 779, 780, 784-86, 789-91, 793, 794
 - Tryptophan oxygenase, 106
 - Tryptophanyl-tRNA synthetase, 851
 - Tubulin, 608
 - Tuliposides, 975
 - Turnip yellow mosaic virus
 - mercury effect, 99
 - structure of, 472
 - Tyrocidine, 768
 - Tyrosinase, 545
 - Tyrosine aminotransferase, 223, 531
 - Tyrosinemia, 547
 - Tyrosine transport, 789, 790

U

 - UDP-galactofuranose, 976
 - UDP-glucuronyltransferase, 565
 - Urease, 106

V

 - Valine transport, 786-88
 - Valinomycin, 766
 - Vesicular stomatitis virus
 - protein of, 738
 - RNA polymerase of, 535
 - structure of, 474
 - Virus structure
 - adenovirus
 - assembly of, 476
 - as model, 475
 - proteins in, 474, 476
 - complex bacteriophage
 - assembly, 483-91
 - T4, 480, 481, 483-91
 - filamentous
 - assembly of, 469-72
 - fd virus, 468, 469
 - tobacco mosaic virus, 468-72
 - icosahedral
 - bacteriophage ϕ X174, 476-78
 - bushy stunt virus, 472
 - self assembly of, 472, 473
 - turnip yellow mosaic virus, 472
 - of lipid-containing viruses
 - animal viruses, 492-95
 - assembly of, 493-95
 - bacteriophage PM2, 491, 492
 - lipids in, 494
 - Sindbis virus, 492-94
 - papovaviruses
 - and models, 473, 475
 - proteins in, 474, 475
 - picornaviruses
 - assembly of, 479
 - ME, 478, 479
 - polio, 474, 478, 479
 - polymorphism in, 495
 - proteins in, 468
 - symmetry in, 468
 - theory of, 467, 468, 495
 - see also specific viruses
 - Vitamin B₁₂
 - conformation of, 961
 - deficiency of

- and fatty acid synthesis, 58
 - and methylmalonyl-CoA mutase, 57-59, 546
 - symptoms of, 58
 - and metabolic disorders, 547, 557, 558
 - and methylmalonate excretion, 57-59, 547, 557
 - in methylmalonic aciduria, 57-59, 546, 547, 557, 558
 - and methylmalonyl-CoA mutase, 57, 58, 546
 - and propionyl-CoA carboxylase, 57
 - X-ray diffraction of, 961
 - Vitamin D
 - and actinomycin, 180, 181
 - biological activity of, 180
 - and calcium-binding protein, 181
 - and calcium transport, 180, 181, 783
 - metabolism of, 180, 181
 - Vitamin E
 - absorption of, 184
 - as antioxidant
 - and diseases, 182
 - and lipid peroxidation, 189
 - and lipofuscin pigments, 189
 - and coenzyme Q, 184
 - and collagen metabolism, 187
 - deficiency of
 - anemias in, 186, 187
 - and collagen metabolism, 187
 - diseases of, 182-84, 186, 187
 - and enzyme activity, 187, 188
 - and heme biosynthesis, 187, 188
 - and lipid peroxidation, 189
 - and lysosomes, 183, 184
 - and mitochondria, 188, 189
 - reversal of, 182, 187
 - symptoms of, 182, 186, 187
 - derivatives of, 185
 - and diet, 187
 - forms of, 184, 185
 - and membranes, 185, 186
 - metabolism of, 184, 185
 - and porphyria, 188
 - and protein synthesis, 188
 - role of, 182, 186
 - and selenium, 184
 - Vitamin K
 - active forms of, 190
 - and clotting factor release, 198
 - and clotting factor synthesis
 - cycloheximide effect, 191, 195
 - de novo, 196, 197
 - in vitro, 194, 195
 - puromycin effect, 196
 - and dicoumarol, 190
 - distribution of, 191
 - inhibitors of, 190-92
 - metabolism of, 191-94
 - and oxidative phosphorylation, 194
 - and PIVKA, 197
 - and RNA synthesis, 195
 - site of action of, 198
 - transport of, 197, 198
 - and warfarin, 190, 191, 197, 198
 - Vitamins
 - in genetic diseases
 - dependency disorders, 557-59
 - role of, 557
 - and vitamin metabolism, 557, 558
 - see also specific vitamins
- W**
- Warfarin, 190-92, 197, 198
 - Wolman's disease, 547, 552, 556
- X**
- Xanthine dehydrogenase
 - cadmium effect, 106
 - and vitamin E, 138
 - Xanthine oxidase, 547, 564
 - Xanthinuria, 547
 - Xanthurenic aciduria, 547, 559
 - Xeroderma pigmentosum, 547
 - X-ray diffraction
 - of actinomycin D, 817, 838-41
 - of adenovirus protein, 475
 - of alcohol dehydrogenase, 817
 - of aldolase, 817
 - of AMP, 961
 - of antibodies, 817, 835, 837
 - of aspartate transcarbamylase, 817
 - of bacteriophage PM2, 492
 - of Bence-Jones proteins, 817
 - of bushy stunt virus, 472
 - of carbohydrates, 960-65
 - of carbonic anhydrase, 816
 - of carboxypeptidase, 816
 - of chymotrypsin, 816
 - of collagen, 627
 - of concanavalin A, 817, 838
 - of cryoglobulin, 837
 - of cytochrome b₅, 816, 829-32
 - of cytochrome c, 816, 827-29, 831
 - of DNA, 237, 252
 - of elastase, 816
 - of flavodoxin, 816, 832, 833
 - of glucose, 960
 - of glutamine synthetase, 817
 - of hemoglobin
 - and Bohr effect, 818, 819, 822, 826
 - and cooperativity, 816, 818-22, 826
 - lamprey, 816, 826, 827
 - of insulin, 817
 - of α -ketoglutarate dehydrogenase, 817
 - of lactic dehydrogenase, 817
 - of lipoproteins, 706, 707, 710, 714, 725
 - of liposomes, 755-57
 - of lysozyme, 816
 - of malate dehydrogenase, 817
 - of muscle, 591
 - of mycoplasma, 769
 - of myelin, 733, 737
 - of myoglobin, 816
 - of nerve, 754, 755
 - of nucleosides, 960, 964
 - of papain, 816
 - of phosphoglycerate kinase, 32, 817
 - of polyamino acids, 873
 - of ribonuclease S, 817
 - of ribosomes, 393, 394
 - or rubredoxin, 816, 833, 834
 - of showdomycin, 922
 - of Sindbis virus, 492, 494
 - of staphylococcal nuclease, 817
 - of subtilisin, 816
 - of TMP, 961
 - of TMV discs, 469, 470
 - of triosephosphate isomerase, 817
 - of trypsin, 816
 - of trypsin inhibitor, 816, 835, 836

of vitamin B₁₂, 961
Xylose isomerase, 988,
989

Y

Yeast
mitochondrial DNA of, 336,
339, 340
petite mutants of

induction of, 360,
361
mitochondrial DNA in,
364, 365
properties of, 364-
66
RNA synthesis in, 365

Z

Zinc

ATP binding of, 34,
35
and cadmium toxicity,
92
DNA binding of, 242
and enzyme action,
92
phosphotransferase activa-
tion by, 33
toxicity of, 92





ANNUAL REVIEW OF BIOCHEMISTRY

Volume 48
1983
Edited by
D. M. Greenberg

ANNUAL REVIEW OF BIOCHEMISTRY

1983

Volume 48

Edited by

D. M. Greenberg

1983

1983

1983

EDITORIAL COMMITTEE (1972)

P. D. BOYER
J. HURWITZ
E. P. KENNEDY
H. A. LARDY
J. M. LUCK
A. MEISTER
M. NIRENBERG
H. K. SCHACHMAN
R. L. SINSHEIMER
E. E. SNELL
G. M. TOMKINS

RESPONSIBLE FOR THE ORGANIZATION OF VOLUME 41 (EDITORIAL COMMITTEE, 1970)

P. D. BOYER
D. S. HOGNESS
E. P. KENNEDY
H. A. LARDY
J. M. LUCK
A. MEISTER
M. NIRENBERG
H. K. SCHACHMAN
R. L. SINSHEIMER
E. E. SNELL
H. A. SOBER